

PROVIDE BONDING WITH 1# *** cu., 1 1/4". TO NEAREST METAL WATER PIPE (HOT, COLD, SPRINKLER, SEWER, BUILDING MOUNTED - INTERIOR OR EXTERIOR ETC), UNINTENTIONALLY UNGROUNDED BUILDING STEEL, GAS PIPE, HVAC DUCTS IN THE BUILDING PER ART. 250.104 (A), (B), & (C)

PROVIDE CONNECTION OF GROUNDING CONDUCTORS/ BONDING JUMPERS PER ART. 250.8 (TYPICAL) USING 2-HOLE CONNECTORS.

1# *** cu., 3/4". TO EFFECTIVELY GROUNDED METAL FRAME OF THE BLDG. PER ART. 250.52(A)(2).

(1) MINIMUM 20 FT. LENGTH OF #4 MINIMUM/ 1#BARE COPPER ENCASED IN MINIMUM 2" OF CONCRETE ALL AROUND PER ART. 250.52(A)(3).

1# *** cu., 3/4". TO METAL UNDERGROUND WATER PIPE AND/OR INTERIOR METAL WATER PIPE WITHIN 5' OF POINT OF ENTRANCE INTO THE BUILDING PER ART. 250.52(A)(1).

WHEN A GROUND RING IS REQUIRED ELSEWHERE IN THESE DRAWINGS, PROVIDE BARE CU CONDUCTOR CONNECTION EQUAL IN SIZE TO GROUND RING CONDUCTOR BUT NOT LESS THAN #2 BARE CU., PER ART. 250.52(A)(4).

(3) SPARE DRILLED CONNECTION POINTS

1#6 CU TO RAISED FLOOR PEDESTALS PER NEC ART. 645.15. SEE DETAIL 10 THIS SHEET FOR ADDITIONAL GROUNDING INFORMATION AND REQUIREMENTS.

TO GROUND BUS LOCATED WITHIN BUILDING SERVICE SWITCHGEAR.

1# *** cu TO GROUNDED CONDUCTOR PER ART. 250.102. PROTECTED WITH CODE-SIZED EMT, IMC, OR RIGID CONDUIT AS CONDITIONS DICTATE.

PROVIDE PERMANENT TAG TO IDENTIFY EACH CONDUCTOR.

1/4"x3"x LENGTH AS REQUIRED. COPPER GROUND BUS OUTSIDE SWITCHBOARD, DRILLED AND TAPPED AS REQUIRED. PROVIDE PHENOLIC LABEL, INDICATING "MAIN ELECTRICAL SERVICE GROUND". SEE ELECTRICAL SPECIFICATIONS FOR MORE INFORMATION.

1# *** cu., 3/4". TO TELECOMMUNICATIONS ROOM BACKBOARDS & GROUNDING BUS BARS. IF PROVIDED IN PROJECT DRAWINGS, SEE TELECOM PATHWAYS & GROUNDING RISER FOR ADDITIONAL REQUIREMENTS.

1# *** cu., 3/4". TO UTILITY CO. TELEPHONE/ CATV BACKBOARD.

FINISHED FLOOR

1#6 cu., 1/2". TO ELECTRODE PER ART. 250.52(A)(5), (A)(6), (A)(7) & 250.53 WHERE NONE OF THE ELECTRODES OF ART. 250.52 (A)(1), (A)(2), (A)(3) & (A)(4) ARE AVAILABLE.

* GROUNDING ELECTRODE
CONDUCTOR SHALL BE
SIZED AS FOLLOWS:
SEE RESPECTIVE SYSTEM/DEVICE
SCHEDULE FOR G.E.C. SIZE.

PROVIDE CONNECTION OF
GROUNDING CONDUCTORS.
BONDING JUMPERS PER
ART.250.8.

WHEN SEPARATELY DERIVED SYSTEM IS A UPS, CPC, PDU OR TRANSFORMER LOCATED IN INFORMATION TECHNOLOGY ROOM, AS DEFINED BY NEC (OR CEC WHERE ADOPTED) ART. 645, SERVER ROOM, DATA CENTER, OR COMPUTER ROOM, PROVIDE 1#2 INSULATED GREEN CONDUCTOR, [°C AND MECHANICALLY CONNECT TO MAIN TELECOMMUNICATIONS GROUNDING BUS AND, WHEN LOCATED ON A TILE ACCESS FLOOR, TO UNDER FLOOR SIGNAL REFERENCE OR GROUNDING GRID AS REQUIRED.

WHERE GROUNDED STRUCTURAL MEMBER OR EFFECTIVE GROUNDED WATER PIPE IS UNAVAILABLE ON THE PREMISES, PROVIDE 1 # 6 cu. [1"C. TO A CONCRETE-ENCASED ELECTRODE WITH MIN OF 20 FT IN LENGTH OF MIN. #4 BARE ENCASED IN MIN. 2" OF CONCRETE ALL AROUND, OR A GROUND RING IN DIRECT CONTACT WITH EARTH AT A DEPTH NOT LESS THAN 2 1/2 FT. WITH 20 FT. LENGTH MIN OF #2 BARE COPPER, WHICHEVER IS AVAILABLE, PER ART. 250.52(A) (3) & (4).

PROVIDE BONDING WITH 1 # 4 cu., —
1 1/4". TO NEAREST METAL, WATER
PIPE (HOT, COLD, SPRINKLER, SEWER,
BUILDING MOUNTED - INTERIOR OR
EXTERIOR ETC), UNINTENTIONALLY
UNGROUNDING BUILDING STEEL, GAS
PIPE, HVAC DUCTS IN THE BUILDING
PER ART. 250.104 (A), (B), & (C)

10' COPPER GROUND
ELECTRODE(S) W/ EXOTHERMIC
CONNECTION(S) TO GROUND
CONDUCTOR. PROVIDE FIBER
GLASS INSPECTION WELL(S).
QUANTITY AS REQUIRED TO
ACHIEVE CODE-REQUIRED
RESISTANCE VALUES.

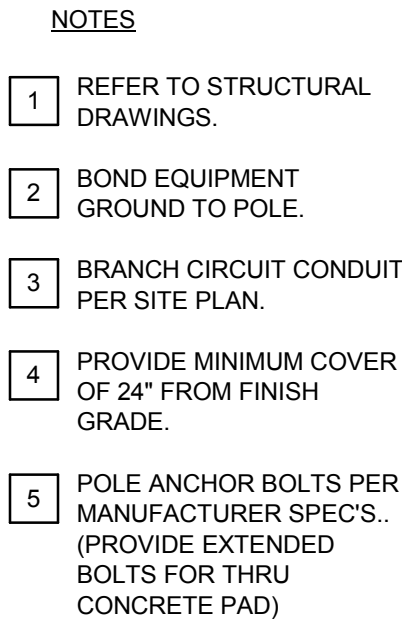
WHERE NO EFFECTIVE GROUNDING —
ELECTRODE IS AVAILABLE PER ART.
250.50, PROVIDE 1 #4cuL ["C. TO OTHER
LOCAL METAL UNDERGROUND PIPING
SYSTEMS AND TANKS, OR ROD AND
PIPE ELECTRODES WITH MIN. OF 8 FT. IN
LENGTH AND SHALL BE INSTALLED PER
ART. 250.52(A)(5)(a) & (b), OR PLATE
ELECTRODES, WHICHEVER IS
AVAILABLE, PER ART 250.52 (A)(5), (A)(6)
& (A)(7)

N.T.S.

2

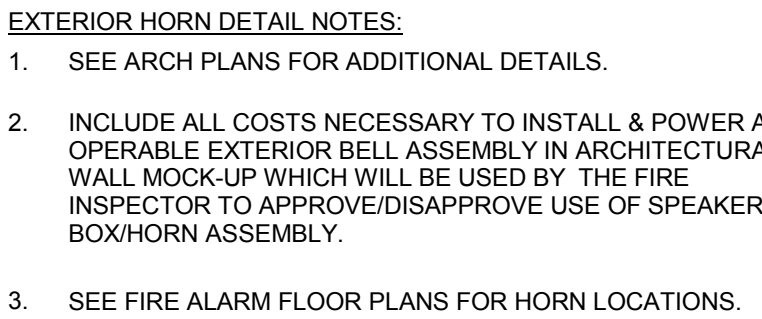
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8



N.T.S.

3

REED ST.-GRANT ST.
SPORTS PARK

Reed & Grant Streets, Santa Clara, CA

Developed for
CITY OF SANTA CLARA

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Job. No.	1416810
DATE	12.13.2016
CHECKED BY	Checker
SCALE	N.T.S.
PROJECT NO.	CE 16-17-13
ACCOUNT NO.	532-4443-80300-3177
TRACING NO.	

TRACING NO.

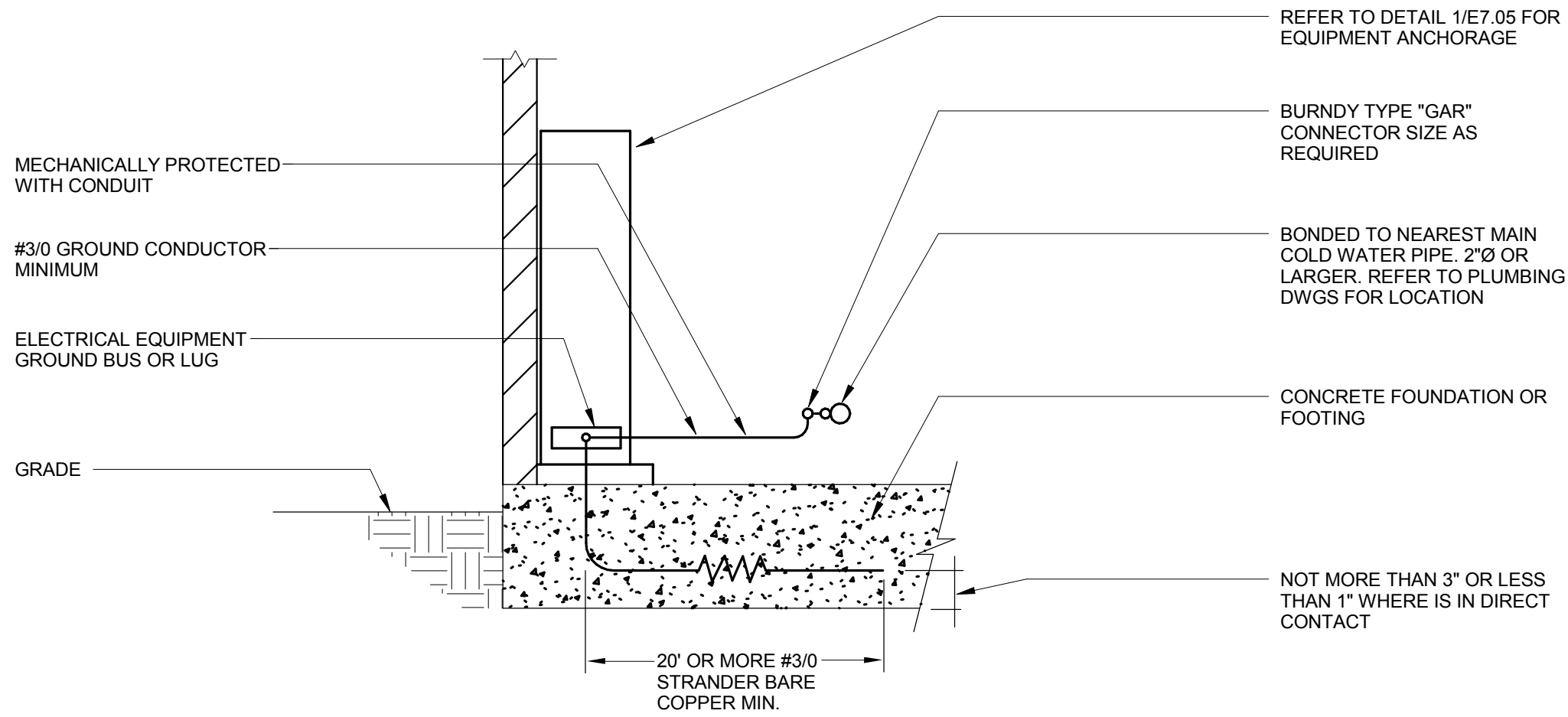
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ELECTRICAL DETAILS

E7.02

SHEET

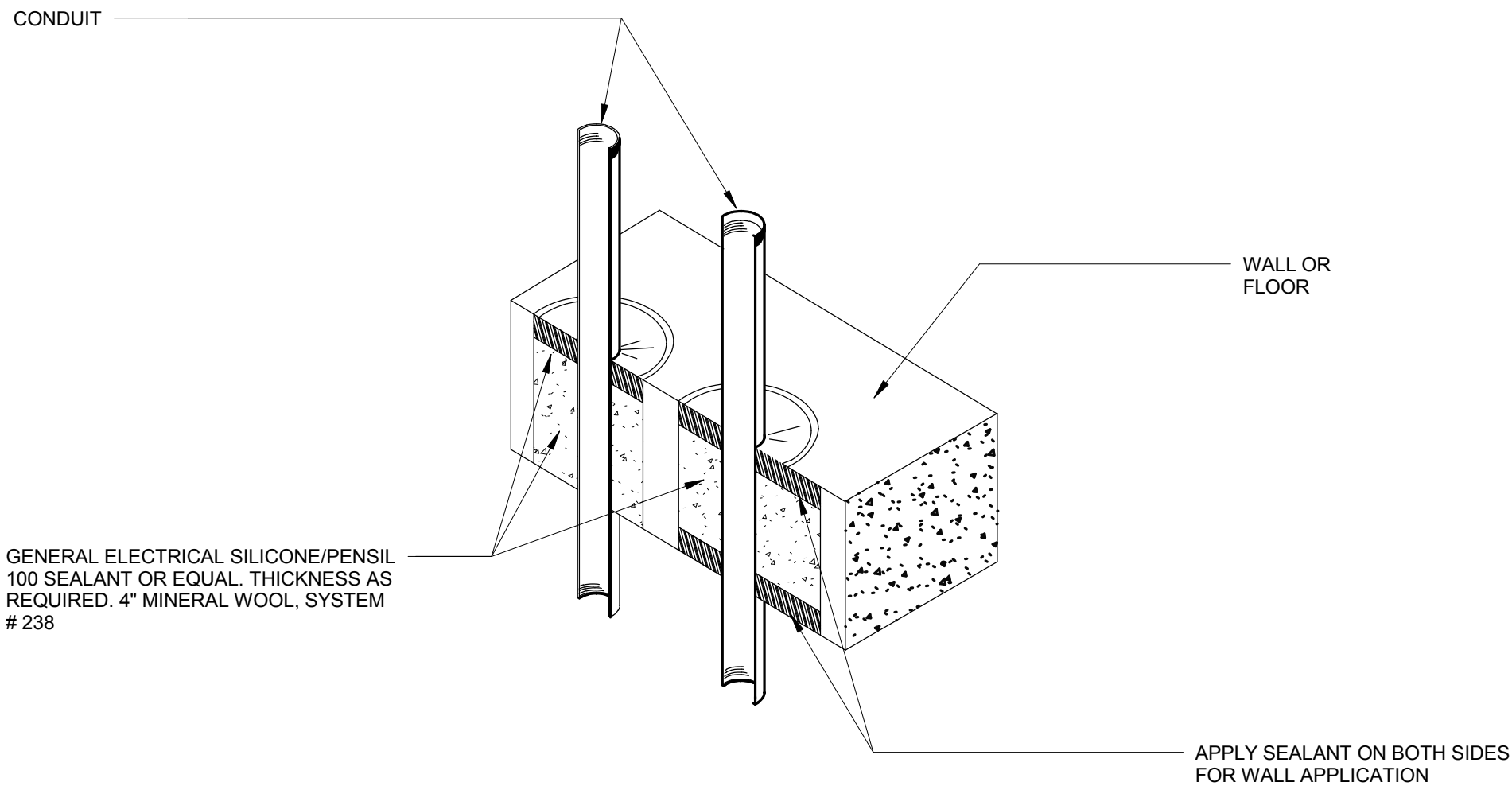
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SWITCHBOARD UFER GROUND

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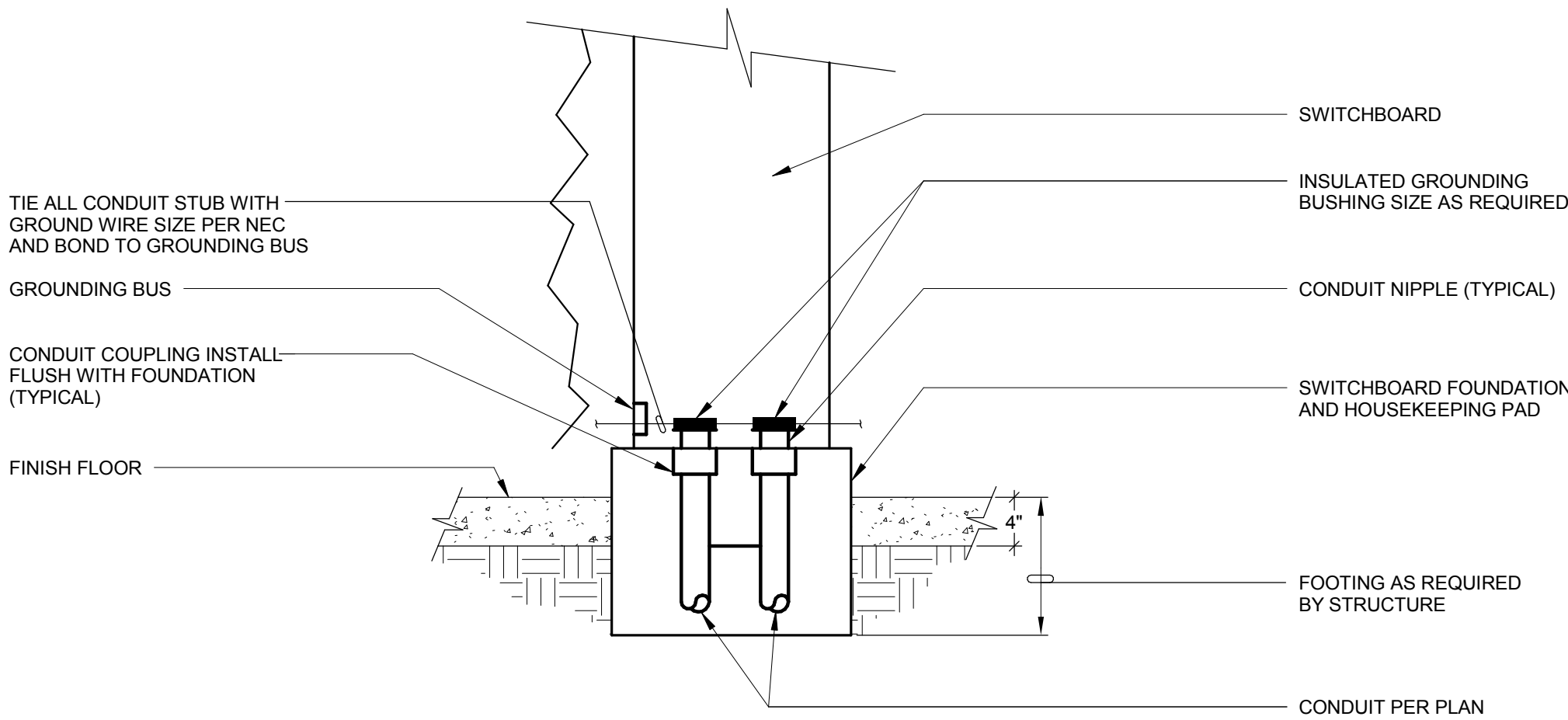
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FIRE-RATED POKETHRU DETAIL

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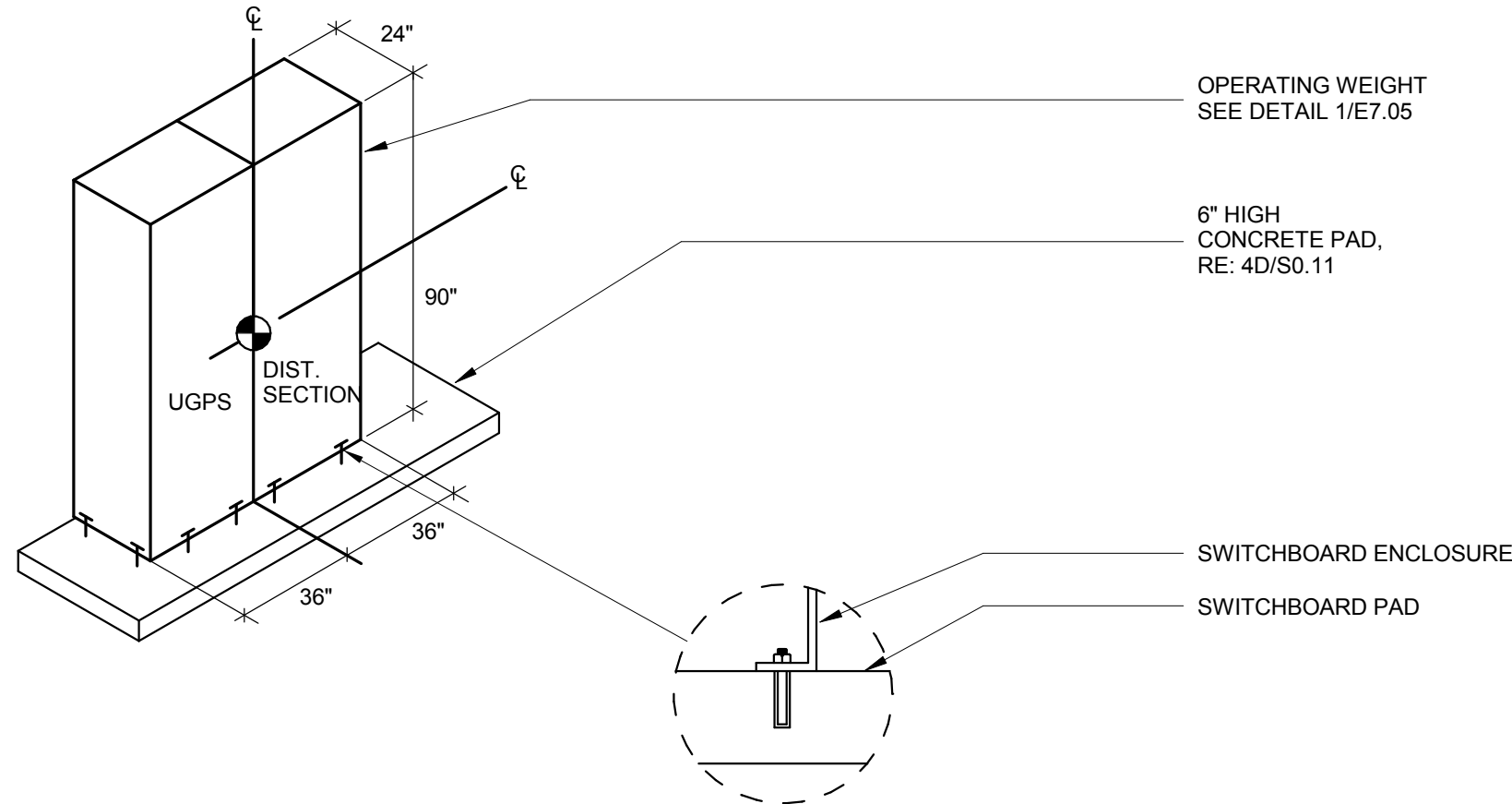
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SWITCHBOARD STUB-UPS AND GROUNDING BOND

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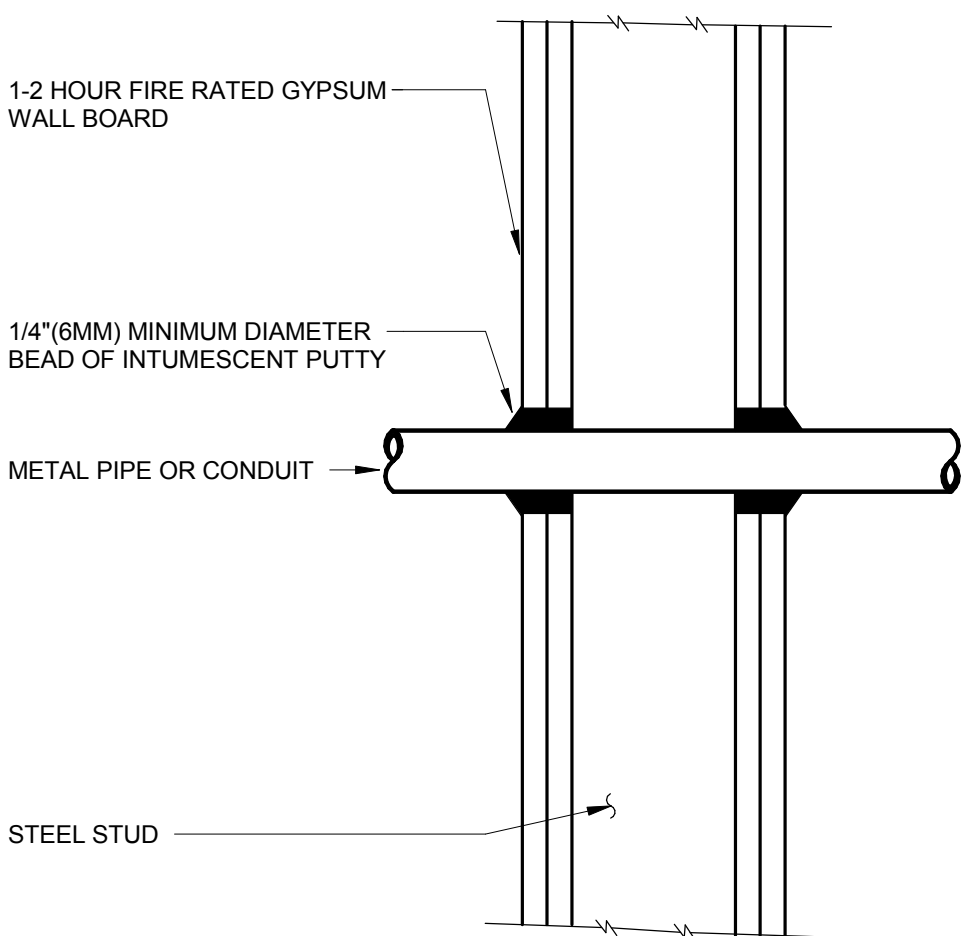


SEE DETAIL 1/E7.05 FOR ADDITIONAL INFORMATION.

SWITCHBOARD ANCHORING DETAIL

N.T.S.

1



NOTES FOR THIS DETAIL:

1. THE SPACE BETWEEN THE PENETRATING ITEM AND WALL BOARD MUST ACCOMMODATE AT LEAST ONE WRAP (1/4") OF INTUMESCENT WRAP STRIP.
2. IF THE ANNULAR SPACE IS LESS THAN 1/2", ONE WRAP OF INTUMESCENT WRAP STRIP IS REQUIRED. IF THE ANNULAR SPACE IS 1/2" OR GREATER, FILL WITH ADDITIONAL WRAPS OF FS-195 WRAP STRIP UNTIL THE ANNULAR SPACE IS LESS THAN 1/4". WRAP STRIPS MAY BE FRICTION FIT INTO OPENING. SECURED WITH FOIL TAPE OR 16 GAUGE STEEL TIE WIRE.
3. SLIDE THE WRAP STRIP INTO THE OPENING, LEAVING A MAX. 3/4" EXPOSED WRAP BEYOND THE WALL SURFACE.
4. SEAL THE WRAP/STRIP EDGES AND SEAMS WITH A 1/4" MINIMUM BEAD OF INTUMESCENT PUTTY.
5. INSTALL FIRESTOP ON BOTH SIDES OF THE WALL.
6. THESE RECOMMENDATIONS ARE BASED ON PRODUCT PERFORMANCE PER ASTM-E814 (UL 1479) FIRE TEST AND UL THROUGH-PENETRATION FIRESTOP SYSTEM # WL1002.

FIRESTOPPING FOR DRYWALL CONDUIT PENETRATION (PUTTY)

N.T.S.

5

Rev. No.	Description	Date	Engr. Init.	CITY ACCEPTANCE	
				By	Date
	100% SCHEMATIC DESIGN	03/11/16			
	DESIGN DEVELOPMENT	05/03/16			
	PCC SUBMITTAL	05/09/16			
	100% DESIGN DEVELOPMENT	08/23/16			
	50% CONSTRUCTION DOCUMENTS	12/13/16			
	AGENCY SUBMITTAL	02/27/17			
Job. No.		1416810			
DATE		12.13.2016			
CHECKED BY		Checker			
SCALE		N.T.S.			
PROJECT NO.		CE 16-17-13			
ACCOUNT NO.		532-4443-80300-3177			

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ELECTRICAL
DETAILS

E7.03

SHEET OF

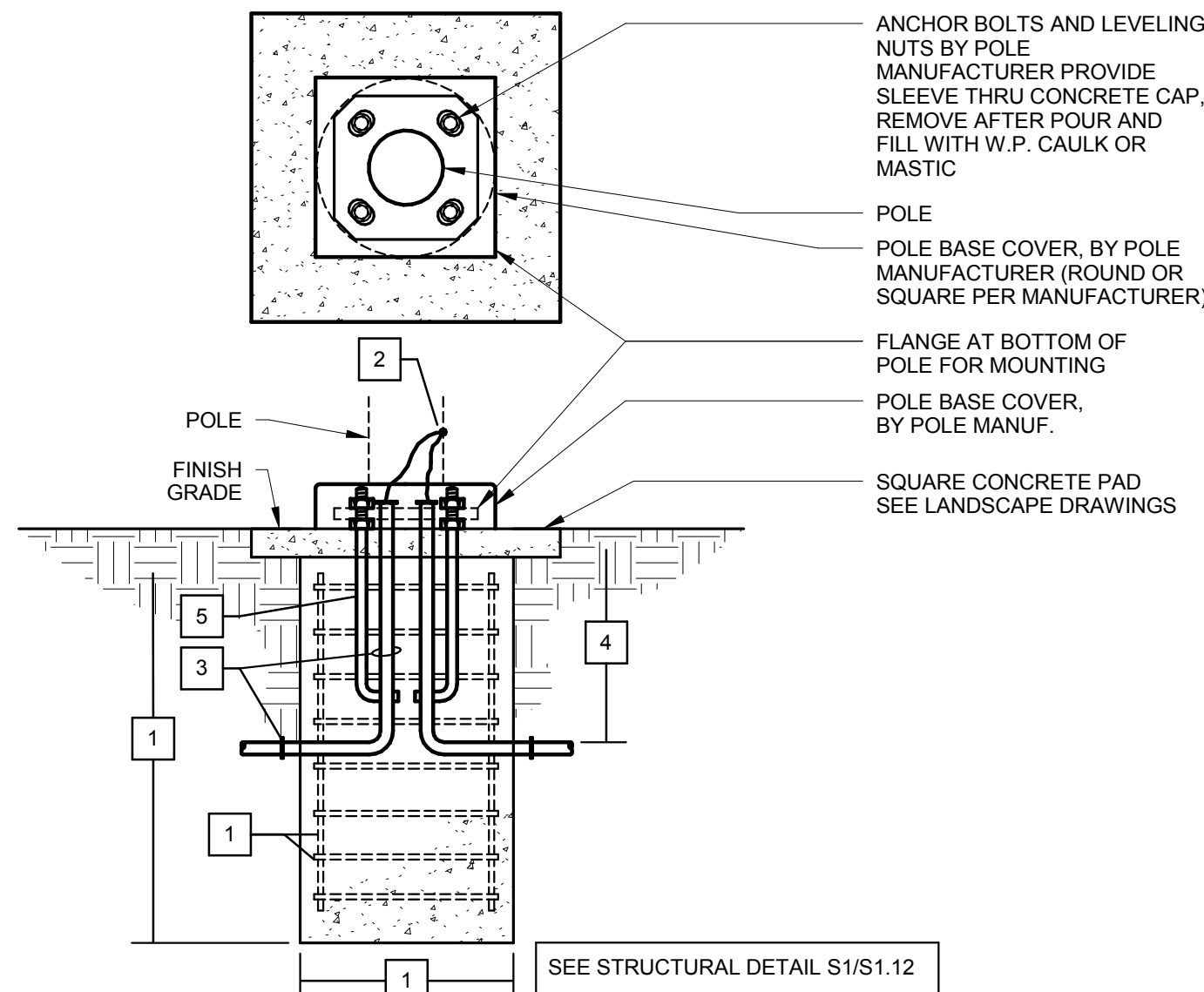
SUSPENSION SYSTEMS FOR LIGHT FIXTURES WHICH HAVE PASSED SHAKING TABLE TESTS APPROVED BY D.S.A., OR WHICH AS INSTALLED, ARE FREE TO SWING A MINIMUM OF .45" FROM THE VERTICAL IN ANY DIRECTION SHALL BE CONSIDERED SATISFACTORY. IT SHALL BE ASSUMED TO COMPLY WITH THE LATERAL-FORCE REQUIREMENTS OF 2007 C.B.C. SECTION 1614-A CHAPTER 13, ASCC -7.05. IF FIXTURES CANNOT NOT SWING A MINIMUM OF .45" FROM THE CENTER IN ALL DIRECTIONS WITHOUT CONTACTING OBSTRUCTIONS, THE DESIGNER SHALL COMPONENT-BASED TEST AND APPROVED FOR EACH CASE. A COMPLETE AIRCRAFT CABLE-TYPE FIBER OPTIC SEISMIC BRACING SYSTEM TO LIMIT MOVEMENT OF CABLE/CORD/HUNG FIXTURES. CABLE BRACING SYSTEM SHALL NOT BE DRAWN TAUT TO AVOID DAMAGE TO THE BRACINGS. THE SYSTEM SHALL BE MODIFIED BY EARTHQUAKES ADJUST TENSION PER BRACING SYSTEM MFR RECOMMENDATIONS.

-
- SLIP RING
 J-BOX
 CANOPY PER MANUF.
 CONDUIT CONT.
 DO NOT FASTEN ANY CABLES TO ROOF SHEETING
 GLUE-LAM BEAM
 UNISTRUT
 ATTACH TO GLUE-LAM BEAM W/ 1/4" DIA X 3" LAG SCREW. TYPICAL
 2-PART ADJUSTABLE COUPLER (GRIPLOCK SYSTEMS HCM-M10 SERIES) FASTENED TO FRAMED WALL BLOCKING WITH #10 WOOD SCREW. OR #6 METAL SCREW WHEN FASTENING TO CONCRETE WALL UTILIZE 3/16" DIA X 1-1/2" SIMPSON TITEN SCREW. (TYP)
 POWER CORD PER MANUFACTURER
 LUMINAIRE TYP. @ 77 LBS EACH
 CABLE-TO-CORD RING COUPLER (GRIPLOCK SYSTEMS #18RI-S CABLE RING) CONNECTING SEISMIC SWAY CABLE AND FIXTURE CORD AT 24" ABOVE TOP OF FIXTURE. SEISMIC SWAY CABLES SHALL BE ROUTED THRU CABLE RING FERRULE AND UNDER THE RING PORTION OF THE CABLE RING SUCH THAT THE SWAY CABLE SUPPORTS THE CABLE RING.
 7/8" DIAMETER SEISMIC SWAY AIRCRAFT CABLE TO MATCH AIRCRAFT CABLE PROVIDED BY FIXTURE MANUFACTURER (GRIPLOCK SYSTEMS OR EQUAL)
 4"X WOOD WALL BLOCKING (FRAMED WALLS ONLY) W/ 2#8 WOOD SCREWS THRU METAL STUDS EACH END (TYP)
 METAL STUD BLOCKING (FRAMED WALLS ONLY) W/ 2#8 METAL SCREWS THRU METAL STUDS EACH END (TYP)

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6

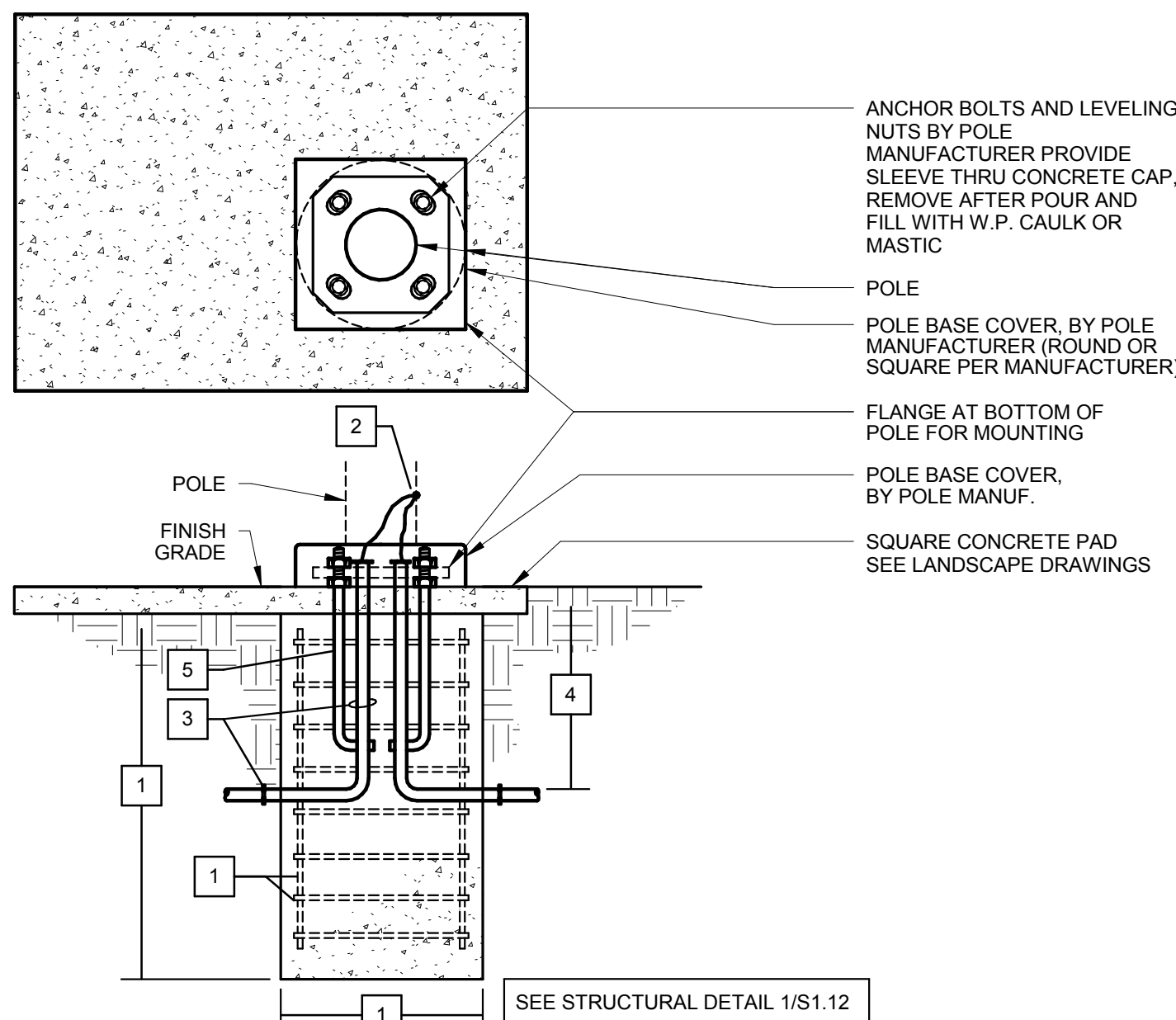
- 1 REFER TO STRUCTURAL DRAWINGS.
- 2 BOND EQUIPMENT GROUND TO POLE.
- 3 BRANCH CIRCUIT CONDUIT PER SITE PLAN.
- 4 PROVIDE MINIMUM COVER OF 24" FROM FINISH GRADE.
- 5 POLE ANCHOR BOLTS PER MANUFACTURER SPEC'S (PROVIDE EXTENDED BOLTS FOR THRU CONCRETE PAD)



N.T.S.

2

- 1 REFER TO STRUCTURAL DRAWINGS.
- 2 BOND EQUIPMENT GROUND TO POLE.
- 3 BRANCH CIRCUIT CONDUIT PER SITE PLAN.
- 4 PROVIDE MINIMUM COVER OF 24" FROM FINISH GRADE.
- 5 POLE ANCHOR BOLTS PER MANUFACTURER SPEC'.. (PROVIDE EXTENDED BOLTS FOR THRU CONCRETE PAD)



N.T.S.

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Diagram illustrating the components and dimensions of a rectangular equipment mount:

- EQUIPMENT MOUNT, ANCHOR PER NOTE 1 OR 2.** (Points to the top edge of the mount)
- QUANTITY OF ANCHOR POINTS PER ROW PER SCHEDULE** (Points to the number of anchor points in a row)
- QUANTITY OF ANCHOR ROWS PER SCHEDULE** (Points to the number of rows of anchor points)
- INTEGRAL MOUNTING BRACKET PER MOUNTING POINT** (Points to the mounting bracket at the bottom left corner)

Diagram illustrating the dimensions and components of a housekeeping pad:


- EQUIPMENT- FOR DIMENSIONS SEE SCHEDULE BELOW**: Points to the main rectangular area of the pad.
- EFFECTIVE EMBED PER NOTE 1 OR 2**: Points to the base layer of the pad.
- EFFECTIVE DISTANCE PER NOTE 1 OR 2**: Points to the distance between the equipment and the base layer.
- HEIGHT**: Points to the vertical dimension of the pad.
- HOUSEKEEPING PAD PER 734923?ref=03034-688c-4ac5-93dc-bc55da5d2e67-000b38c**: Points to the base layer of the pad.

ANCHORAGE SCHEDULE - FLOOR MOUNTED EQUIPMENT								
EQUIPMENT	WEIGHT (lbs)	HEIGHT (in)	WIDTH (in)	DEPTH (in)	MECHANICAL ANCHORS (PER GENERAL NOTES) - SEE NOTE 1 & 2			
					MECH'L ANCH. Ø	QUANTITY OF ANCHOR ROWS	QUANTITY OF ANCHOR POINTS PER ROW	QUANTITY OF ANCHS. PER POINT
MDPG	1110	90	36	24	1/2"	2	3	1
TG	900	44	32	27	1/2"	2	2	1
IDF CAB.	1000	72	19	24	1/2"	2	2	1
INVG	1168	47	30	25	1/2"	2	3	1

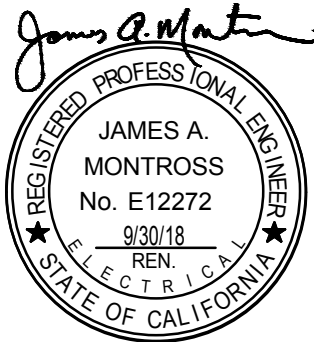
1. INSTALL PER ICC ESR-1397, WITH SPECIAL INSPECTION. FOR 12" DIA. HILTI KB-TZ, PROVIDE 3 1/4" EFFECTIVE EMBED. FOR 5/8" DIA. HILTI KB-TZ, PROVIDE 4" EFFECTIVE EMBED, MIN. 3" THICK CONCRETE, MIN. 3" EDGE DISTANCE, AND MIN 12" SPACING. U.N.O., IN 4,000 PSI NORMAL WT. CONCRETE.
2. ALL OTHER UNITS (150# MAX.) ARE PERMITTED TO USE 3/8" DIA. x 1 5/8" LONG HILTI KWIK HUE-EZ PER ICC ESR-3207. PROVIDE A MIN. OF 3" EDGE DISTANCE ON A 4" NORMAL WT. CONCRETE HAVING KEEPING PAD (fc = 4,000 PSI).

N.T.S.

1

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REED ST.-GRANT ST.
SPORTS PARK

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Developed for
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Job. No.	1416810
DATE	12.13.2016
CHECKED BY	Checker
SCALE	N.T.S.
PROJECT NO.	CE 16-17-13
ACCOUNT NO.	532-4443-80300-3177
TRACING NO.	

12,158-D

ELECTRICAL DETAILS

E7.05

SHEET	OF
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OF

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 3 of 6)

E. Declaration of Required Certificates of Acceptance
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Compliance Document/Title	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/> Field Inspector

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

F. Indoor Lighting Schedule and Field Inspection Energy Checklist
☐ The actual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.
☐ When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
☐ When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines
☐ Also include track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-05-E) when line-voltage track lighting is installed.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 5 of 6)

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ CONDITIONED SPACE ☒ UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Field Inspector ¹		
01	02	03	04	05	06	07	08		
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F3278, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined CEC Default from table According to 160.6(a) As specified in 160.6(b)	Number of Luminaires	Total installed Watts in this area (H03 x H05)	Primary Function area in which these luminaires are installed	Pass	Fail	
LP3	LP3	15.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11	165	Kitchen, Food Preparation	<input type="checkbox"/>	<input type="checkbox"/>
LP3	LP3	15.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18	270	Corridor/Restroom/Support	<input type="checkbox"/>	<input type="checkbox"/>
LP3-120	LP3-120	15.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	90	Industrial Work, Precision	<input type="checkbox"/>	<input type="checkbox"/>
LP4-120	LP4-120	31.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	62	Industrial Work, Precision	<input type="checkbox"/>	<input type="checkbox"/>
LP3-2	LP3-2	22.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	22	Industrial Work, Precision	<input type="checkbox"/>	<input type="checkbox"/>
LP3-4	LP3-4	32.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	32	Corridor/Restroom/Support	<input type="checkbox"/>	<input type="checkbox"/>
LP3-4	LP3-4	32.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	64	Commercial, Industrial Storage	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						705	Enter sum total of all pages into NRCC-LTI-01-E, Page 2		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting - Lighting Controls
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-02-E
(Page 2 of 3)

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☒ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Lighting Control Schedule		Standards Complying With ¹ (✓ all that apply, or enter 'E' if Exempted)										PAF Credit Calculation ⁴		Field Inspector		
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, automatic time switch, dimmer, automatic daylight, etc...)	# of Units	\$130.1(a)	\$130.0(b)	\$130.1(c)	\$130.1(d)	\$130.1(e)	\$140.6(a)(2)	\$140.6(a)	Watts of Controlled Lighting	PAF	Control Credit (X 4.1)	PAF Acceptance Test Required	Pass	Fail	
109 MULTI-PURPOSE	Daylight - Dimming/Off		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			936	0.10	94	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
109 MULTI-PURPOSE	Daylight - Dimming/Off		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			186	0.10	19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Control Credit PAGE TOTAL (Sum of Column 13):											112					
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):											112					
Enter Control Credit total into NRCC-LTI-01-E, Page 1.																

¹ \$130.1(a) = Manual area controls; \$130.0(b) = Multi Level; \$130.1(c) = Auto Shut-Off; \$130.1(d) = Mandatory Daylight; \$130.1(e) = Demand Responsive; \$140.6(d) = Additional lighting controls installed to earn a PAF; \$140.6(a) = Prescriptive Secondary Sidelet Daylight Controls.
² Check Table 140.6-A for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 2 of 6)

C. Summary of Allowed Lighting Power
Conditioned and Unconditioned space Lighting must not be combined for compliance

Indoor Lighting Power for Conditioned Spaces			Indoor Lighting Power for Unconditioned Spaces		
	Installed Lighting	Watts		Installed Lighting	Watts
01	NRCC-LTI-01-E, Table H, page 5	+ 1,238		NRCC-LTI-02-E, page 2	+ 705
02	Portable Only for Offices NRCC-LTI-01-E, Table G, page 4	+			
03	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	- 112		Minus Lighting Control Credits NRCC-LTI-02-E, page 2	- 143
04	Adjusted Installed Lighting Power (row 1 plus row 2 minus row 3)	= 1,126		Adjusted Installed Lighting Power (row 1 minus row 3)	= 563

Complies ONLY if Installed < Allowed (Box 04 < Box 05)

Allowed Lighting Power Conditioned NRCC-LTI-03-E, page 1	2,142	Allowed Lighting Power Unconditioned NRCC-LTI-03-E, page 1	1,096
05	Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2

D. Declaration of Required Certificates of Installation
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Compliance Document/Title	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCL-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCL-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCL-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCL-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCL-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCL-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/> Field Inspector

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 5 of 6)

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Field Inspector ¹		
01	02	03	04	05	06	07	08		
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F3278, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined CEC Default from table According to 160.6(a) As specified in 160.6(b)	Number of Luminaires	Total installed Watts in this area (H03 x H05)	Primary Function area in which these luminaires are installed	Pass	Fail	
LP1-36	LP1-36	468.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	936	Convention/Conference/Meeting	<input type="checkbox"/>	<input type="checkbox"/>
LP1-6	LP1-6	52.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	52	Office <= 250 sqft	<input type="checkbox"/>	<input type="checkbox"/>
LP2	LP2	31.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	186	Convention/Conference/Meeting	<input type="checkbox"/>	<input type="checkbox"/>
LP3-4	LP3-4	32.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	64	Electrical, Mechanical Room	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						1,238	Enter sum total of all pages into NRCC-LTI-01-E, Page 2		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting - Lighting Controls
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-02-E
(Page 1 of 3)

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls in accordance with Section 130.1(a).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)(4).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	The general lighting of any enclosed area 120 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-Off control requirements in Section 130.1(c).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylight zones are shown on the plans.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4 (a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 1 of 6)

A. General Information

Climate Zone:	4	Conditioned Floor Area:	1,856
		Unconditioned Floor Area:	1,261
Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel
<input type="checkbox"/> Schools	<input type="checkbox"/> Relocatable Public Schools	<input checked="" type="checkbox"/> Conditioned Spaces	<input checked="" type="checkbox"/> Unconditioned Spaces
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Method of Compliance:	<input checked="" type="checkbox"/> Complete Building	<input checked="" type="checkbox"/> Area Category	<input type="checkbox"/> Tailored
Project Address:			

B. Lighting Compliance Documents (select yes for each document included)

YES	NO	COMP. DOC.	TITLE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-01-E	Certificate of Compliance. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-02-E	Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-03-E	Indoor Lighting Power Allowance
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-04-E	Tailored Method Worksheets
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-LTI-05-E	Line Voltage Track Lighting Worksheets
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LTI-06-E	Indoor Lighting Existing Conditions

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 4 of 6)

G. Installed Portable Luminaires in Offices – Exception to Section 140.6(a)

☐ This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.

☐ This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office

☐ Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems.

Office Portable Luminaire Schedule						Office Installed Portable Luminaire W/R ²		Office Location		Field Inspector	
1	2	3	4	5	6	7	8	9	10		
Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted direct/indirect)	Watts per Luminaire	Number of Luminaires	Installed portable luminaire watts in this office (G02 x G03)	Square feet of this office (G04 / G05)	Watts per square foot (G06 / G05)	If G06 ≤ 0.3, enter zero; If G06 > 0.3, (G06-0.3)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail	
									<input type="checkbox"/>	<input type="checkbox"/>	
									<input type="checkbox"/>	<input type="checkbox"/>	
									<input type="checkbox"/>	<input type="checkbox"/>	
									<input type="checkbox"/>	<input type="checkbox"/>	
									<input type="checkbox"/>	<input type="checkbox"/>	
Total installed portable luminaire watts that are greater than 0.3 W/R ² per office:									Enter sum total of all pages into NRCC-LTI-01-E, Page 1		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: REED & GRANT SPORTS PARK
Date Prepared: 2/21/2017

NRCC-LTI-01-E
(Page 6 of 6)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, **James A. Montross**, certify that this Certificate of Compliance Documentation is accurate and complete.

Documentation Author Name: JAMES A. MONTROSS	Documentation Author Signature: <i>James A. Montross</i>
Company: LPA, Inc.	Signature Date: 2/21/2017
Address: 5161 California Avenue, Suite 100	CEA Certification Identification (if applicable):
City/State/Zip: Irvine, CA 92617	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: James A. Montross	Responsible Designer Signature: <i>James A. Montross</i>
Company: LPA, INC.	Date Signed: 2/21/2017
Address: 60 South Market Street, Suite 150	License: E12272
City/State/Zip: San Jose, California 95117	Phone: (408)780-7200

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

LPA
408.780.7201
info@lpainc.com

60 South Market Street, Suite 150
San Jose, California 95113


James A. Montross
JAMES A. MONTROSS
No. E12272
RECEIVED PROFESSIONAL SEAL
STATE OF CALIFORNIA

REED ST.-GRANT ST. SPORTS PARK
Read & Grant Streets, Santa Clara, CA
Developed for
CITY OF SANTA CLARA


100% SCHEMATIC DESIGN
DESIGN DEVELOPMENT
PCC SUBMITTAL
100% DESIGN DEVELOPMENT
50% CONSTRUCTION DOCUMENTS
AGENCY SUBMITTAL

1416810
12.13.2016
Checked By: Checker
SCALE
PROJECT NO. CE 16-17-13
ACCOUNT NO. 532-4443-80300-3177
TRACING NO.
12,158-D
ENERGY COMPLIANCE FORMS
E8.00
SHEET OF

[illegible][illegible][illegible]

 <p>LPA</p> <p>p. 408.700.7200 w. lpainc.com</p> <p>f. 408.700.7201 e. info@lpainc.com</p>		<p>60 South Market Street, Suite 150 San Jose, California 95113</p>	
<p>REED ST.-GRANT ST. SPORTS PARK</p>		<p>Read & Grant Streets, Santa Clara, CA</p>	
<p>Developed for</p> <p>CITY OF SANTA CLARA</p>		<p>Copyright 2017</p>	

STATE OF CALIFORNIA
OUTDOOR LIGHTING
 DECARBONIC LTO-01-E (Revised 02/19)
 CERTIFICATE OF COMPLIANCE

CALIFORNIA ENERGY COMMISSION

 NRCC-LTO-01-E
 (Page 3 of 4)

Outdoor Lighting

Project Name: **REED & GRANT SPORTS PARK**

Date Prepared: **2/21/2017**

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist										
Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector		
01	02	03	04	05	06	07	08	09		
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined		Number of Luminaires	Total Installed Watts in this area (3 x 5)	Primary Function area in which the luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
			CEC Default from table (§15006)	According to (§15006)						
LN1-T4FT	LN1-T4FT	157.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	1,256	Automotive Hardscape	UH: UL: FVH: BVH: FH: BH:	<input type="checkbox"/>	<input type="checkbox"/>
HN1	HN1	95.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	570	Automotive Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
LN1-SLL	LN1-SLL	157.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	157	Automotive Hardscape	UH: UL: FVH: BVH: FH: BH:	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						1,983	Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, page 1.		10,708	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

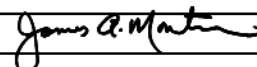
April 2016

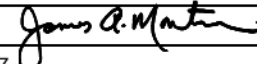
STATE OF CALIFORNIA OUTDOOR LIGHTING CGL-NRCC-LTO-01-E (Revised 10/19)						CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTO-01-E				
Outdoor Lighting						(Page 3 of 4)				
Project Name: REED & GRANT SPORTS PARK						Date Prepared: 2/21/2017				
I. Outdoor Lighting Schedule and Field Inspection Energy Checklist										
Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector		
01	02	03	04	05	06	07	08	09		
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	CCC Default from Table	According to §1510.6(c)	Number of Luminaires	Total Installed Watts in this area (1+2+3+4+5)	Primary Function area in which the luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
LN1-SLR	LN1-SLR	107.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	107	Automotive Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
LN1-SL3	LN1-SL3	166.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	1,162	Automotive Hardscape	UH: UL: FVH: BVH: FH: BH:	<input type="checkbox"/>	<input type="checkbox"/>
LN1-2T4W	LN1-2T4W	314.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	942	Automotive Hardscape	UH: UL: FVH: BVH: FH: BH:	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						2,211	Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, page 1.	10,708		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

April 2016

STATE OF CALIFORNIA INDOOR LIGHTING POWER ALLOWANCE <small>(REPLACES TABLE 405.4 of the California Code of Regulations)</small>		CALIFORNIA ENERGY COMMISSION NRCC-LTI-03-E	
CERTIFICATE OF COMPLIANCE Certificate of Compliance - Indoor Lighting Power Allowance		NRCC-LTI-03-E (Page 4 of 4)	
Project Name: REED & GRANT SPORTS PARK		Date Prepared: 2/21/2017	

DOCUMENTATION AUTHORITY'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Authority Name: JAMES A. MONTROSS	Documentation Authority Signature: 
Company: LPA, Inc	Signature Date: 2/21/2017
Address: 5161 California Avenue, Suite 100	CEA Certification Identification (if applicable):
City/State/Zip: Irvine CA 92617	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.	
Responsible Designer Name: James A. Montross	Responsible Designer Signature: 
Company: LPA, INC	Date Signed: 2/21/2017
Address: 60 South Market Street, Suite 150	Location: E12272
City/State/Zip: San Jose, California 95617	Phone: (408)780-7200

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

April 2016

STATE OF CALIFORNIA OUTDOOR LIGHTING <small>CEC-NRCC-LTO-01-E (Revised 04/18)</small>		CALIFORNIA ENERGY COMMISSION 	
CERTIFICATE OF COMPLIANCE		NRCC-LTO-01-E	
Outdoor Lighting		(Page 2 of 4)	
<small>Project Name:</small> REED & GRANT SPORTS PARK	<small>Date Prepared:</small> 2/21/2017		

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)	
01 Name or Symbol	02 Description of exempt luminaire in accordance with the exemptions

H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)	
01 Name or Symbol	02 Description of exempt luminaire in accordance with the exemptions

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

April 2016

STATE OF CALIFORNIA OUTDOOR LIGHTING <small>(CEC-NRCC-LTO-01-0-E (Revised 04/16))</small>		 CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-LTO-01-E
Outdoor Lighting		(Page 1 of 4)
Project Name: REED & GRANT SPORTS PARK	Date Prepared:	

A. General Information		
Project Address: CITY OF SANTA CLARA, CA	Total Illuminated Handscape Area: 173,302	
Phase of Construction: <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Alteration		
Outdoor Lighting Zone (LZ): <input type="checkbox"/> LZ-1 <input type="checkbox"/> LZ-2 <input type="checkbox"/> LZ-3 <input checked="" type="checkbox"/> LZ-4		
I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114		

B. Lighting Compliance Documents (check box for each document included)	
For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Non-residential Manual published by the California Energy Commission.	
<input checked="" type="checkbox"/> NRCC-LTO-01-E	Certificate of Compliance
<input type="checkbox"/> NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
<input checked="" type="checkbox"/> NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
<input type="checkbox"/> NRCC-LTO-04-E	Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power		Watts
01	Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1 Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.	11,567
Complies ONLY if Installed (Box 02) ≤ Allowed (Box 01)		
02	Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-03-E, page 3.	10,708

D. Declaration of Required Installation Certificates	
Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)	
<input checked="" type="checkbox"/> NRCC-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input checked="" type="checkbox"/> NRCC-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> Field Inspector

E. Declaration of Required Certificates of Acceptance	
Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)	
<input checked="" type="checkbox"/> NRCC-LTO-02-A - Must be submitted for outdoor lighting controls.	<input type="checkbox"/> Field Inspector

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7	
01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
April 2016

STATE OF CALIFORNIA OUTDOOR LIGHTING <small>CEC-NRCC-LTO-01-E (Revised 02/08)</small>										CALIFORNIA ENERGY COMMISSION 	
CERTIFICATE OF COMPLIANCE Outdoor Lighting										NRCC-LTO-01-E (Page 3 of 4)	
Project Name: REED & GRANT SPORTS PARK										Date Prepared: 2/21/2017	

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist										
Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector		
01	02	03	04	05	06	07	08	09		
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined		Number of luminaires	Total installed Watts in this area (0-2,500 Watts) (0-2,500 Watts)	Primary Function area in which the luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
			CEC Default from IMB	According to §180.6(c)						
LN1-T4W	LN1-T4W	157.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	314	Automotive Hardscape	UH: _____ UL: _____ FVR: _____ BVH: _____ FH: _____ BH: _____	<input type="checkbox"/>	<input type="checkbox"/>
HN1	HN1	95.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	47	4,465	Pedestrian Hardscape	UH: n/a UL: n/a FVR: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
LU1	LU1	18.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	36	Pedestrian Hardscape	UH: n/a UL: n/a FVR: n/a BVH: n/a FH: n/a BH: n/a	<input type="checkbox"/>	<input type="checkbox"/>
INSTALLED WATTS PAGE TOTAL:						4,815	Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-01-E, page 1.		10,708	

[illegible]

STATE OF CALIFORNIA OUTDOOR LIGHTING POWER ALLOWANCES <small>(RECOMMENDED & Standard Power)</small>		 CALIFORNIA ENERGY COMMISSION	
CERTIFICATE OF COMPLIANCE		NRCC-LTO-03-E	
Outdoor Lighting Power Allowances		(Page 4 of 4)	
Project Name: REED & GRANT SPORTS PARK		Date Provided: 2/21/2017	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: JAMES A. MONTROSS Company: LPA, Inc Address: 5161 California Avenue, Suite 100 City/State/Zip: Irvine, CA 92617	Documentation Author Signature: Signature Date: 2/21/2017 (CA Certificate Identification (if applicable)) Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design (identified on this Certificate of Compliance) conforms to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.	
Responsible Designer Name: James A. Montross Company: LPA, INC Address: 60 South Market Street, Suite 150 City/State/Zip: San Jose, California 92617	Responsible Designer Signature: Date Signed: 2/21/2017 License: E12272 Phone: (408)780-7200

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016



[illegible]



- 1 PROVIDE (2) 4" C. ALONG THE ENTIRE RUN OF THE DUCT BANK ALL THE WAY BACK TO ELECTRICAL ROOM AT MULTIPURPOSE BUILDING.
- 2 IRRIGATION CONTROLLER. PROVIDE 120V POWER AND DATA CONNECTIONS FROM MAINTENANCE BUILDING. SEE POWER AND LOW VOLTAGE FLOOR PLANS FOR MORE INFORMATION.
- 3 PROVIDE 50-MICRON FIBER CONNECTION, FROM NEAREST IDF CABINET, AT LIGHT POLE FOR EXTERNAL WIFI DEVICE. RUN CABLES IN 1" C.
- 4 PROVIDE (2) DATA DROPS, FROM NEAREST IDF CABINET, AT EACH EV CHARGING STATIONS. RUN CAT 6 CABLES IN 1-1/4" C.
- 5 NOT USED.
- 6 PROVIDE 2'X3'X2" PULL BOX W/ H20 RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR FIRE ALARM SYSTEM, AND ENGRAVE SERVICE TYPE ON COVER.
- 7 PROVIDE 3'X5'X3" PULL BOX W/ H20 RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR LOW VOLTAGE SYSTEMS, AND ENGRAVE SERVICE TYPE ON COVER.
- 8 PROVIDE 3'X5'X3" PULL BOX W/ H20 RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR POWER, AND ENGRAVE SERVICE TYPE ON COVER.
- 9 PROVIDE 1'X1'X18" PULL BOX W/ H20 RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR SPECIALTY MUSCO LIGHTING CONNECTION, AND ENGRAVE SERVICE TYPE ON COVER.
- 10 PROVIDE OUTDOOR RATED USE GFCI DUPLEX RECEPTACLE WITH WP COVER. MOUNT RECEPTACLE AT 18" A.F.F. ON LIGHT POLE / BOLLARD AND CONNECT AS SHOWN ON PLANS.
- 11 PROVIDE 15'X18" PULL BOX MADE BY SPORTSFIELD SPECIALTIES MODEL # 3500.5 ComBox, OR APPROVED EQUAL.

PROVIDER: SILICON VALLEY POWER
PLANNER: SACHIN BAJRACHARYA
PHONE NUMBER: (408) 615-6617

1. ALL EXISTING ELECTRICAL EQUIPMENT ARE EXISTING TO REMAIN AND OPERATIONAL. SEE SVP STANDARDS UG1250 FOR REQUIRED CLEARANCES BETWEEN EXISTING AND NEW UTILITIES.
2. SEE SVP STANDARDS UG1000 FOR EQUIPMENT AND TRENCHES DETAILS.

 <p> p. 408.780.7200 f. 408.780.7201 w. lpainc.com e. info@lpainc.com </p>				<p>60 South Market Street, Suite 150 San Jose, California 95113</p>	
<p>REED ST. - GRANT ST. SPORTS PARK</p>		<p>SITE ELECTRICAL PLAN</p>		<p>This and all other project documents and all details, instruments of service. All project documents are the property of LPA and shall remain the property of LPA. LPA and its consultants shall not be held responsible for the use of any information, drawings, or documents for any purpose other than that for which they were prepared. LPA and its consultants shall not be held responsible for the use of any information, drawings, or documents for any purpose other than that for which they were prepared. LPA and its consultants shall not be held responsible for the use of any information, drawings, or documents for any purpose other than that for which they were prepared.</p>	
<p>12,158-D</p>		<p>SITE ELECTRICAL PLAN</p>		<p>E1.10</p>	
<p>SHEET</p>		<p>OF</p>		<p>Copyright 2017</p>	



- 1 PROVIDE (2) 4" C. ALONG THE ENTIRE RUN OF THE DUCT BANK ALL THE WAY BACK TO ELECTRICAL RACK AT MULTIPURPOSE BUILDING.
- 2 IRRIGATION CONTROLLER. PROVIDE 120V POWER AND DATA CONNECTIONS FROM MAINTENANCE BUILDING. SEE POWER AND LOW VOLTAGE FLOOR PLANS FOR MORE INFORMATION.
- 3 PROVIDE 50-MICRON FIBER CONNECTION. FROM NEAREST IDF CABINET, AT LIGHT POLE FOR EXTERNAL WIFI DEVICE. RUN CABLES IN 1" C.
- 4 PROVIDE (2) DATA DROPS, FROM NEAREST IDF CABINET, AT EACH EV CHARGING STATIONS. RUN CAT 6 CABLES IN 1-1/4" C.
- 5 NOT USED.
- 6 PROVIDE 2X3X2" PULL BOX W/ 10 H2O RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR FIRE ALARM SYSTEM, AND ENGRAVE SERVICE TYPE ON COVER.
- 7 PROVIDE 3X5X3" PULL BOX W/ 10 H2O RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR LOW VOLTAGE SYSTEMS, AND ENGRAVE SERVICE TYPE ON COVER.
- 8 PROVIDE 3X5X3" PULL BOX W/ 10 H2O RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR POWER, AND ENGRAVE SERVICE TYPE ON COVER.
- 9 PROVIDE 11"X18" PULL BOX W/ 10 H2O RATED COVER (WHENEVER BOX IS LOCATED IN TRUCK PATHWAY) FOR SPECIALTY MUSCO LIGHTING CONNECTION, AND ENGRAVE SERVICE TYPE ON COVER.
- 10 PROVIDE OUTDOOR RATED USP GFCI DUPLEX RECEPTACLE WITH WP COVER. MOUNT RECEPTACLE AT 18" A.F.F. ON LIGHT POLE / BOLLARD AND CONNECT AS SHOWN ON PLANS.
- 11 PROVIDE 15X18" PULLBOX MADE BY SPORTSFIELD SPECIALTIES MODEL # 3500.5 ComBox, OR APPROVED EQUIAL.
- 12 PROVIDE ADDITIONAL 24"X36" PULLBOX EVERY 300 FEET ALONG PROJECT PARAMETERS FOR SECONDARY POWER SPLICING. PULLBOX(ES) NOT SHOWN ON PLAN DUE TO CONGESTION AND SCALE OF PLAN. SEE SVP STANDARD UG1000 FOR MORE INFORMATION.
- 13 PROVIDE ADDITIONAL 24"X36" PULLBOX EVERY 300 FEET ALONG PROJECT PARAMETERS FOR UTILITY ELECTRIC SPLICING. PULLBOX(ES) NOT SHOWN ON PLAN DUE TO CONGESTION AND SCALE OF PLAN. SEE SVP STANDARD UG1000 FOR MORE INFORMATION.
- 14 PROVIDE ADDITIONAL 17X30" PULLBOX ES ALONG PROJECT PARAMETERS FOR STREET LIGHTING. VERIFY QUANTITY AND LOCATION OF PULLBOXES AND POLE LIGHTS FOUNDATION WITH SVP. PULLBOXES AND POLES FOUNDATION NOT SHOWN ON PLAN DUE TO CONGESTION AND SCALE OF PLAN. SEE SVP STANDARD UG1000 FOR MORE INFORMATION.

PROVIDER: SILICON VALLEY POWER (SVP)
PLANNER: SACHIN BAJRACHARYA
PHONE NUMBER: (408) 615-6617

1. ALL EXISTING ELECTRICAL EQUIPMENT ARE EXISTING TO REMAIN AND OPERATIONAL. SEE SVP STANDARDS UG1250 FOR REQUIRED CLEARANCES BETWEEN EXISTING AND NEW UTILITIES.
2. SEE SVP STANDARDS UG1000 FOR EQUIPMENT AND TRENCHES DETAILS.

[illegible]

FIRE ALARM PLAN REQUIREMENTS

1.
- ALL WALL-MOUNTED VISUAL SIGNALING APPLIANCES AND COMBINATION AUDIBLE/VISUAL SIGNALING APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THEN 80 INCHES AND NO GREATER THEN 96 INCHES ABOVE THE FINISHED FLOOR. ALL WALL MOUNTED AUDIBLE SIGNALING APPLIANCES SHALL HAVE THEIR TOPS ABOVE FINISHED FLOOR AT HEIGHTS NOT LESS THEN 90 INCHES AND BELOW FINISHED CEILING ON NOT LESS THEN 6 INCHES (WHICHEVER IS LOWER).
2.
- ALL EQUIPMENT SHALL BE U.L. AND C.S.F.M. LISTED.
3.
- ALL WIRING SHALL BE IN ACCORDANCE WITH THE C.E.C. AND AUTHORITIES HAVING JURISDICTION.
4.
- ALL JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH THE C.E.C. AND SHALL HAVE THEIR COVERS PAINTED RED WHERE APPLICABLE.
5.
- ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS THAT REQUIRE SERVICING, TROUBLE SHOOTING, ETC.
6.
- DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM ELECTRICAL ENGINEER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
7.
- DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIR-FLOW, NOR CLOSER THEN 3 FEET (915mm) FROM AN AIR SUPPLY DIFFUSER.
8.
- ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY MECHANICAL CONTRACTOR, AND SHALL BE COORDINATED WITH FIRE ALARM SYSTEM.
9.
- ALL DUCT SMOKE DETECTORS SHALL BE MOUNTED BY THE MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS EXPOSED TO THE WEATHER SHALL BE C.S.F.M. LISTED FOR OUTDOOR INSTALLATION, AND WEATHER PROTECTED BY THE MECHANICAL CONTRACTOR. ALL AIR VELOCITY TESTING SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.
10.
- ALL 120VAC POWER REQUIREMENTS FOR THE FIRE ALARM SYSTEM SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR AND SHALL MEET ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
11.
- ALL FIRE ALARM DEVICE BACKBOXES, FIRE ALARM TERMINAL CABINETS, GUTTERS, JUNCTION BOXES, AND ASSOCIATED CONDUITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO FIRE ALARM SYMBOL LIST AND/OR MOUNTING DETAILS FOR ADDITIONAL INFORMATION. SYSTEM SUPPLIER PROVIDED BACKBOXES SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. FIRE ALARM PANEL, REMOTES AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURER'S SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
12.
- SMOKE DETECTOR TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH NFPA 72, ALL APPLICABLE CODES AND THE MANUFACTURER'S INSTRUCTIONS.
13.
- ALL WIRING, INITIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION. THE FIRE ALARM CONTROL PANEL TO SUPERVISE THE ANNUNCIATOR PANEL, ALL INITIATING AND INDICATING DEVICE CIRCUITS.
14.
- ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES PER CEC STANDARDS. ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 6' OF LEAD WIRE FROM THE BOX TO THE DEVICE.
15.
- POINT AND COMMON ANNUNCIATION IS PROHIBITED. SLC MAY BE T-TAPED ONLY AT BUILDING FATC IF NECESSARY. INSTALL SLC LOOPED WITHIN ALL BUILDINGS AS SHOWN ON THE FLOOR PLANS.
16.
- PROVIDE 3/4" CONDUIT FROM FIRE ALARM CONTROL PANEL TO TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING.
17.
- CONTRACTOR TO FIELD VERIFY AND PROVIDE DECIBEL METER FOR TESTING OF AMBIENT NOISE LEVELS (MINIMUM 15db ABOVE AVERAGE AMBIENT NOISE LEVEL BUT NOT LESS 75 DBA AT 10 FEET OR MORE THAN 110 DBA AT THE MINIMUM HEARING DISTANCE - SEE NFPA 72 APPENDIX A.7.4.2.1.) INSTALL ADDITIONAL AUDIBLE DEVICES AS NEEDED TO ATTAIN REQUIRED NOISE LEVELS IN ALL REQUIRED AREAS. PROVIDE UPDATED PLANS AND CALCULATIONS THROUGH THE "CHANGE ORDER" PROCESS WHEN INSTALLING ADDITIONAL DEVICES. INSPECTOR (IOR) TO WITNESS FINAL TEST OF SYSTEM. CONTRACTOR(S) TO PROVIDE FINAL TEST RESULT AND "RECORD OF COMPLETION" TO ARCHITECT OF RECORD, OWNER, DIVISION OF THE STATE ARCHITECT, IOR AND LOCAL FIRE AUTHORITY.
18.
- ALL CONDUITS ARE 3/4" U.O.N. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
19.
- ALL FLOW SWITCHES SHALL BE 2 WIRE WITH NON-ELECTRONIC RETARD TYPE SIMILAR TO THE SYSTEM SENSOR MODEL "WFD SERIES" ONLY.
20.
- ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
21.
- SYSTEM SHALL BE FURNISHED AND INSTALLED BY A MANUFACTURER'S AFFILIATE AND AUTHORIZED DISTRIBUTOR.
22.
- FIRE ALARM SYSTEM INSTALLATION COMPANY SHALL BE UL LISTED (ULUS). INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
23.
- DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEAN-UP OF ALL TRADES IS COMPETE AND FINAL. DETECTORS THAT HAVE BEEN INSTALLED PRIOR TO FINAL CLEAN-UP BY ALL TRADES SHALL BE CLEANED OR REPLACED IN ACCORDANCE WITH CHAPTER 7, CLEANING OR REPLACEMENT OF DEVICES THAT WERE MOUNTED AT THE REQUEST OF THE CONTRACTOR WILL NOT BE PERFORMED WITHOUT WRITTEN AUTHORIZATION THAT ASSUMES FINANCIAL RESPONSIBILITY FOR COSTS INCURRED. SEE THE LATEST VERSION OF NFPA 72.
24.
- PER ADAAG, 2013 - 4.27.4, CONTROLS AND OPERATING MECHANISMS AT INITIATING DEVICE CONTROLS AND OPERATING MECHANISM AT INITIATING DEVICE "SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5lbf (22.2N)."
25.
- FIRE ALARM SYSTEM CONTROL PANEL SHALL HAVE PROGRAMMING TO ALLOW FOR THE MANUAL SILENCING OF THE AUDIBLE PORTION OF AN ALARM WHILE MAINTAINING THE ALARM STATUS OF ALL VISUAL DEVICES WITHIN THE SYSTEM.
26.
- THE SYSTEM SHALL CONFORM TO CALIFORNIA CODE OF REGULATIONS (CCR) TITLES 19 AND 24 AS APPLICABLE TO THIS PROJECT.
27.
- SPEAKER COVERAGE SHALL COMPLY WITH NFPA 72 AND 2013 CBC. PROVIDE 2W SPEAKER COVERAGE IN CLASSROOMS AND 1/4W IN SMALL SPACES (OFFICES, RESTROOMS AND STORAGE/SUPPORT).
28.
- ALL FIRE ALARM SYSTEM VISUAL SIGNAL BE SYNCHRONIZED THROUGHOUT THE SITE.
29.
- WHERE SPEAKER/STROBE OCCUR AT WHITEBOARDS, LOCATE DEVICE(S) 14" ABOVE TOP OF WHITEBOARD, NOT TO EXCEED 96" TO TOP OF LENS.
30.
- PROVIDE A LABEL WITHIN THE FACP AND EACH POWER SUPPLY WITH THE PANEL NUMBER AND CIRCUIT NUMBER OF THE 120 VOLT POWER SOURCE.
31.
- WHERE A DETECTOR IS INSTALLED ABOVE THE CEILING, THE DETECTOR SHALL BE EASILY ACCESSIBLE AND THE LOCATION OF THE DETECTOR SHALL BE CLEARLY MARKED. FOR DUCT SMOKE DETECTORS A REMOTE TEST STATION SHALL BE PROVIDED.
32.
- TEMPERATURE SETTINGS OF HEAT DETECTOR DEVICES ARE TO BE SET AT A MINIMUM OF 20°F. ABOVE THE MAXIMUM EXPECTED TEMPERATURE OF THE SPACE INSTALLED PER NFPA 72, 2-23.
33.
- MECHANICAL UNIT (HVAC) SHUT DOWN SHALL UTILIZE FULLY AUTOMATIC FIRE ALARM SYSTEM AREA SMOKE COVERAGE TO TRIGGER RELAY FOR HVAC UNIT SHUT DOWN (PER CMC 608).
34.
- UPON COMPLETION OF SYSTEM INSTALLATION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND IN A MANNER ACCEPTABLE TO DSA/I.O.R. CONTRACTOR SHALL SUPPLY NECESSARY TESTING EQUIPMENT, INCLUDING A "SOUND LEVEL METER" TO CHECK ACCEPTABLE NOISE LEVELS OF AUDIBLE DEVICES. PROVIDE TEST RESULTS PER NFPA 72 TO ARCHITECT, D.S.A., I.O.R. AND TO LOCAL FIRE AUTHORITY. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA72, FIGURE 10.18.2.1.1.
35.
- THE "END OF LINE RESISTANCE" OF EACH CIRCUIT SHALL BE TESTED IN THE PRESENCE OF THE I.O.R. AND SHALL NOT EXCEED A MAXIMUM OF 10% VOLTAGE DROP, OR LISTED MANUFACTURER'S MINIMUM OPERATING VOLTAGE.
36.
- REFER TO DETAIL SHEET FOR EXTERIOR HORN MOUNTING.
37.
- ALL WIRING USED IN UNDERGROUND CONDUIT SHALL BE LISTED FOR WET AREA APPLICATION, IN ACCORDANCE WITH CEC 760.
38.
- ALL UNDERGROUND FIRE ALARM SYSTEM CONDUCTORS SHALL BE CONTINUOUS FROM END TO END. NO UNDERGROUND SPLICES WILL BE PERMITTED, NOR ACCEPTABLE.
39.
- FIRE ALARM SYSTEM IS FULLY AUTOMATIC SYSTEM.
40.
- APPLICABLE STANDARD 2013 NFPA 72.
41.
- INSTALLATION OF THE SYSTEM SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
42.
- A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
43.
- ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
44.
- DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
45.
- ALL PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 16, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
46.
- PROVIDE COMPLETE VOICE EVACUATION SYSTEM. PROVIDE ALL COMPONENTS, DEVICES AND PANELS FOR A COMPLETE SYSTEM.
47.
- THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
48.
- VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
49.
- UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
50.
- ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.

SYMBOL LIST

SYMBOL	MODEL	MFGR	DESCRIPTION
	NFS2-3030	NOTIFIER	FIRE ALARM CONTROL PANEL
	FCPS-24S6	NOTIFIER	FIRE ALARM SUPPLY PANEL
	DVC SERIES	NOTIFIER	EMERGENCY VOICE CONTROL CENTER
	LCD2-80	NOTIFIER	REMOTE ANNUNCIATOR
	FSP-851	NOTIFIER	PHOTOELECTRIC DETECTOR
	B210LP	NOTIFIER	BASE
	FRM-1	NOTIFIER	ADDRESSABLE RELAY
	FCM-1	NOTIFIER	MONITOR MODULE
	FST-851	NOTIFIER	ADDRESSABLE HEAT DETECTOR (ABOVE ACCESSIBLE CEILING U.N.O.)
	B210LP	NOTIFIER	BASE
	"E" SERIES	NOTIFIER	CEILING SPEAKER/STROBE
	"E" SERIES	NOTIFIER	WALL SPEAKER/STROBE
	SPWK	NOTIFIER	WALL SPEAKER (EXTERIOR)
	SPWK	NOTIFIER	CEILING SPEAKER (EXTERIOR)
	WFD	NOTIFIER	WATERFLOW
	FCM-1	NOTIFIER	MONITOR MODULE
	OSY2	NOTIFIER	TAMPER
	FCM-1	NOTIFIER	MONITOR MODULE
	NBG-1	NOTIFIER	PULL STATION
	SSM24-10	NOTIFIER	24VAC BELL

CONDUCTOR DESIGNATION	WIRE IN CONDUIT	CONDUCTOR DESIGNATION	WIRE IN CONDUIT UNDERGROUND / WET LOCATION	CIRCUIT TYPE
Z	2 #16 UNSHIELDED (WEST PENN #D990)	ZU	2 #16 FPL UNSHIELDED (WEST PENN #AQ-225)	INITIATING CIRCUIT
N	2 #12 THHN STRANDED	NU	2 #12 THWN STRANDED	AV CIRCUIT
P	2 #12 THHN STRANDED	PU	2 #12 THWN STRANDED	POWER CIRCUIT
C	2 #12 THHN STRANDED	CU	2 #12 THWN STRANDED	NETWORK CONTROL
S	2 #12 THHN STRANDED	SU	2 #12 THWN STRANDED	SPEAKER CIRCUIT
EXAMPLE: <div><p>NUMBER OF CONDUCTOR PAIRS CONDUCTOR DESIGNATION</p></div> ABOVE EXAMPLE "2A" MEANS "2 PAIRS OF #12 WIRE"				
NOTE: <div>1. ALL WIRE MODEL NUMBERS ARE WEST PENN. EQUIVALENT BY OTHER MANUFACTURER IS ACCEPTABLE.</div> <div>2. COLOR CODE ALL FIRE ALARM CONDUCTORS PER DISTRICT STANDARDS. VERIFY COLOR SCHEMES PRIOR TO ORDERING FIRE ALARM CONDUCTORS.</div> <div>3. ALL WIRE SHALL BE IN 3/4" CONDUIT, U.O.N.</div>				

FIRE ALARM SEQUENCE OF OPERATIONS

ACTION DEVICE	ACTIVATE ALL SIGNALS	ACTIVATE REMOTE ANNUNCIATOR	ACTIVATE TROUBLE OR SUPERVISORY SIGNAL	MONITOR TO UL LISTED CENTRAL STATION
	ACTIVATE ALL SIGNALS	ACTIVATE REMOTE ANNUNCIATOR	ACTIVATE TROUBLE OR SUPERVISORY SIGNAL	MONITOR TO UL LISTED CENTRAL STATION
CONTROL PANEL	YES	YES	YES	YES
MANUAL PULL STATION	YES	YES	NO	YES
SMOKE DETECTOR	YES	YES	NO	YES
HEAT DETECTOR	YES	YES	NO	YES
A/C POWER FAILURE	NO	YES	YES	YES
WIRING FAULTS	NO	YES	YES	YES
WATERFLOW	YES	YES	NO	YES
TAMPER	NO	YES	YES	YES

FIRE ALARM SCOPE OF WORK

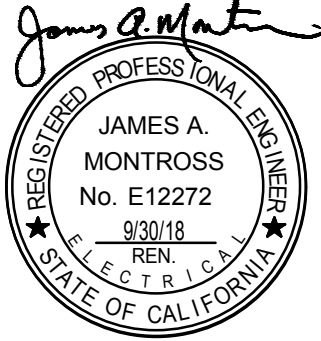
TO PROVIDE AND INSTALL A NEW ANALOG ADDRESSABLE, VOICE EVAC, AUTOMATIC, POWER LIMITED 24V DC SUPERVISED FIRE ALARM SYSTEM WITHIN THE MULTIPURPOSE BLDG AND MAINTENANCE BLDG AS INDICATED ON PLANS.

DEFERRED FIRE ALARM SUBMITTAL

AUTOMATIC FIRE ALARM SYSTEM



60 South Market Street, Suite 150
San Jose, California 95113



REED ST.-GRANT ST.
SPORTS PARK

Read & Grant Streets, Santa Clara, CA

Developed for
CITY OF SANTA CLARA

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CITY ACCEPTANCE	By	Date	Eng Init	Date	Description	Rev. No.	Job. No.	DATE	CHECKED BY	SCALE	PROJECT NO.	ACCOUNT NO.	TRACING NO.
				03/11/16	100% SCHEMATIC DESIGN		1416810	12.13.2016	Checker		CE 16-17-13	532-4443-80300-3177	
				05/03/16	DESIGN DEVELOPMENT								
				05/08/16	PCC SUBMITTAL								
				08/23/16	100% DESIGN DEVELOPMENT								
				12/13/16	50% CONSTRUCTION DOCUMENTS								
				02/27/17	AGENCY SUBMITTAL								

12,158-D

FIRE ALARM LEAD SHEET

FA0.00

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OF



2

1. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER/ENGINEER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC. THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
2. DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIR-FLOW , NOT CLOSER THAN 3 FEET FROM ANY SUPPLY DIFFUSER.
3. FIRE ALARM EVACUATION SIGNAL SHALL BE CLEARLY HEARD AND COMPLY WITH 2013 NFPA 72 16.4.3.1.
4. REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR PRECISE OUTLET LOCATIONS.
5. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.
6. IF SHIELDED WIRE IS USED, THE FOLLOWING MUST BE OBSERVED.
 - A. METALLIC CONTINUITY OF THE SHIELD MUST BE MAINTAINED AND INSULATED THROUGHOUT THE ENTIRE LENGTH OF THE CABLE.
 - B. THE ENTIRE LENGTH OF THE CABLE MUST HAVE A RESISTANCE GREATER THAN 1 MEGAOMH TO EARTH.
7. ALL PENETRATIONS THROUGH FIRE RATED WALL SHALL BE PROTECTED FROM THE SPREAD OF FIRE WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE FIRE RATING OF THE STRUCTURE / SURFACE BEING PENETRATED.
8. A SYSTEM GROUND MUST BE PROVIDED FOR EARTH DETECTION AND LIGHTING PROTECTION DEVICES. THIS CONNECTION SHALL BE MADE TO AN APPROVED DEDICATED EARTH CONNECTION PER CEC, ARTICLE 250.
9. WIRING IN DUCTS, PLENUMS AND OTHER AIR HANDLING SPACES MUST BE INSTALLED IN ACCORDANCE WITH CEC 2013.
10. UNDERGROUND WIRING MUST BE FREE OF ALL WATER.
11. ALL FIRE ALARM SYSTEM CONDUCTORS SHALL BE RUN IN A DEDICATED FIRE ALARM CONDUIT SYSTEM.

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CITY OF SANTA CLARA

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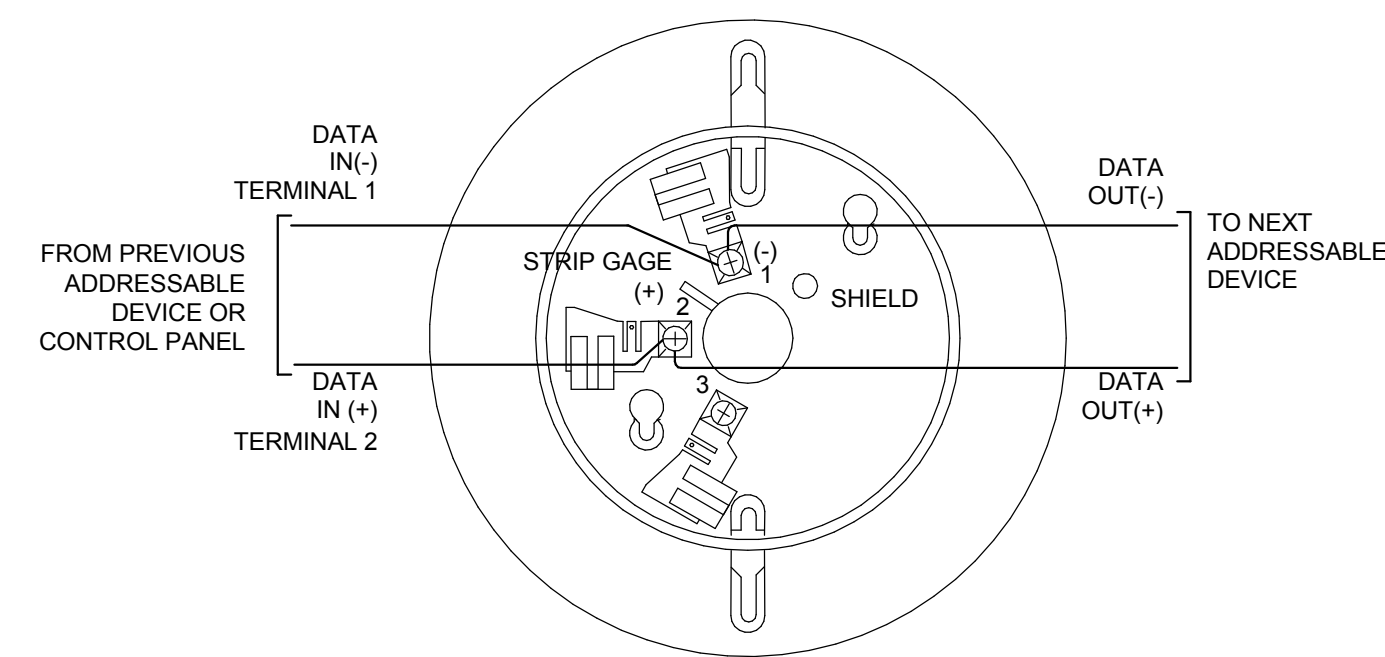
Rev. No.	Description	Date	Eng' Init.	By	CITY ACCEPTANCE
	100% SCHEMATIC DESIGN	03/11/16			
	DESIGN DEVELOPMENT	06/03/16			
	PCC SUBMITTAL	06/09/16			
	100% DESIGN DEVELOPMENT	09/23/16			
	50% CONSTRUCTION DOCUMENTS	12/13/16			
	AGENCY SUBMITTAL	02/27/17			
Job. No.	1416810				
DATE	12.13.2016				
CHECKED BY	Checker				
SCALE	As indicated				
PROJECT NO.	CE 16-17-13				
ACCOUNT NO.	532-4443-80300-3177				

TRACING NO.
12,158-D

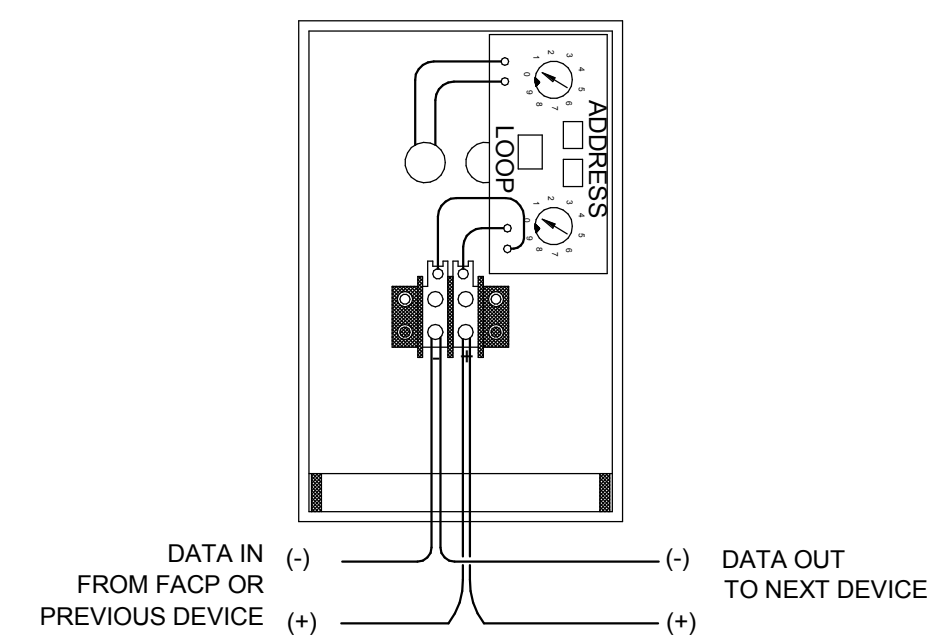
FIRE ALARM FLOOR PLAN

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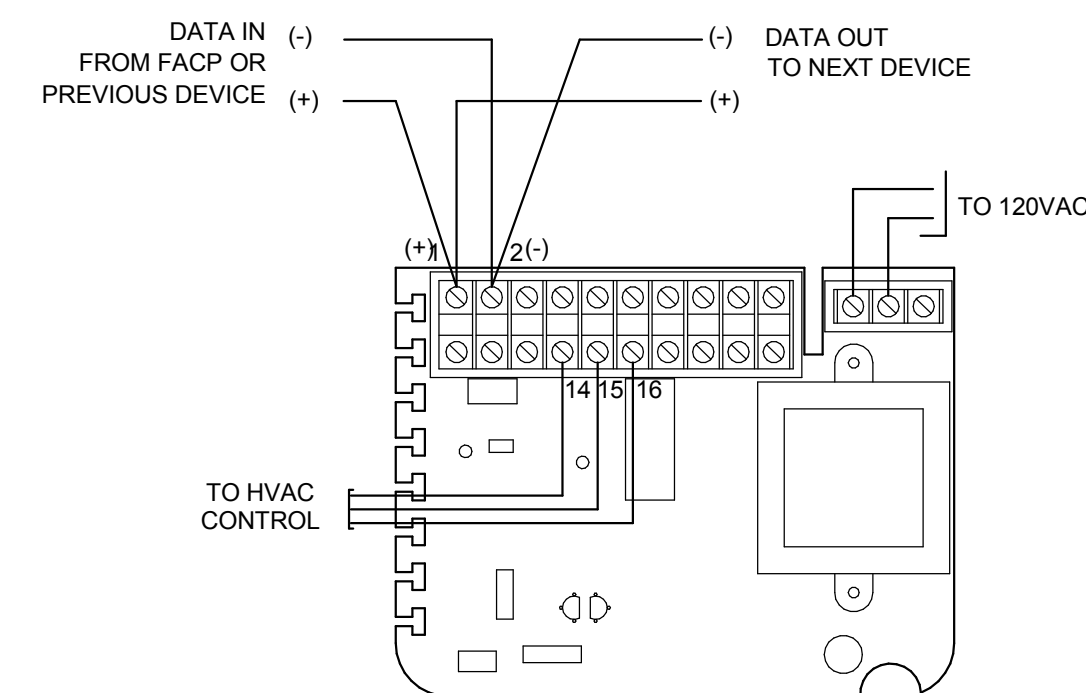
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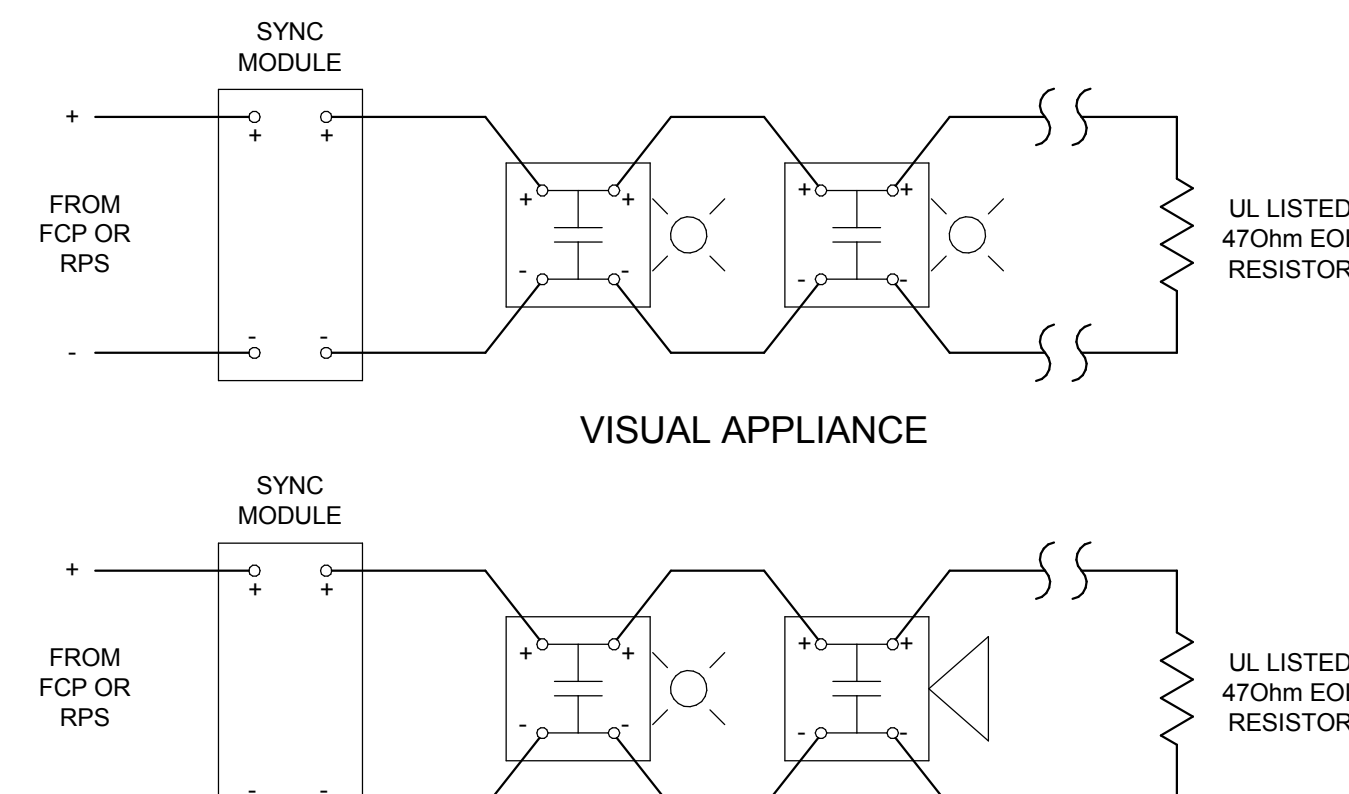
STANDARD DETECTOR BASE



MANUAL PULL STATION

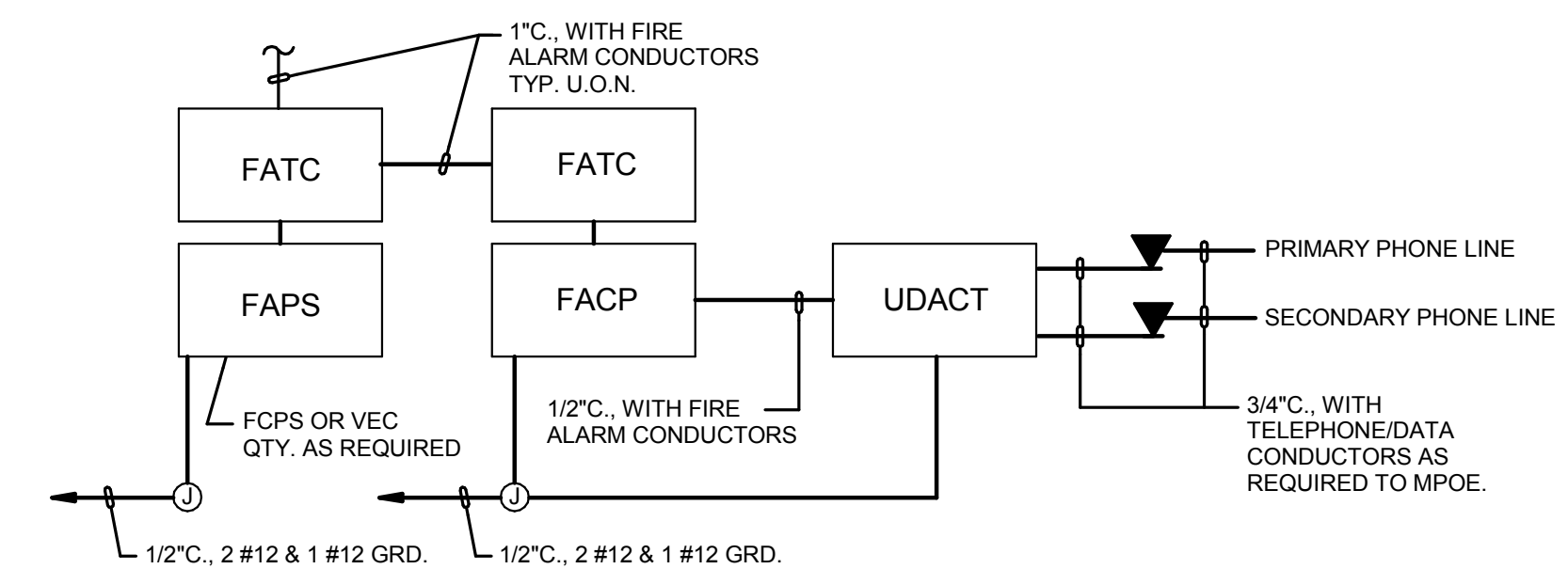


A/C UNIT SHUT-DOWN



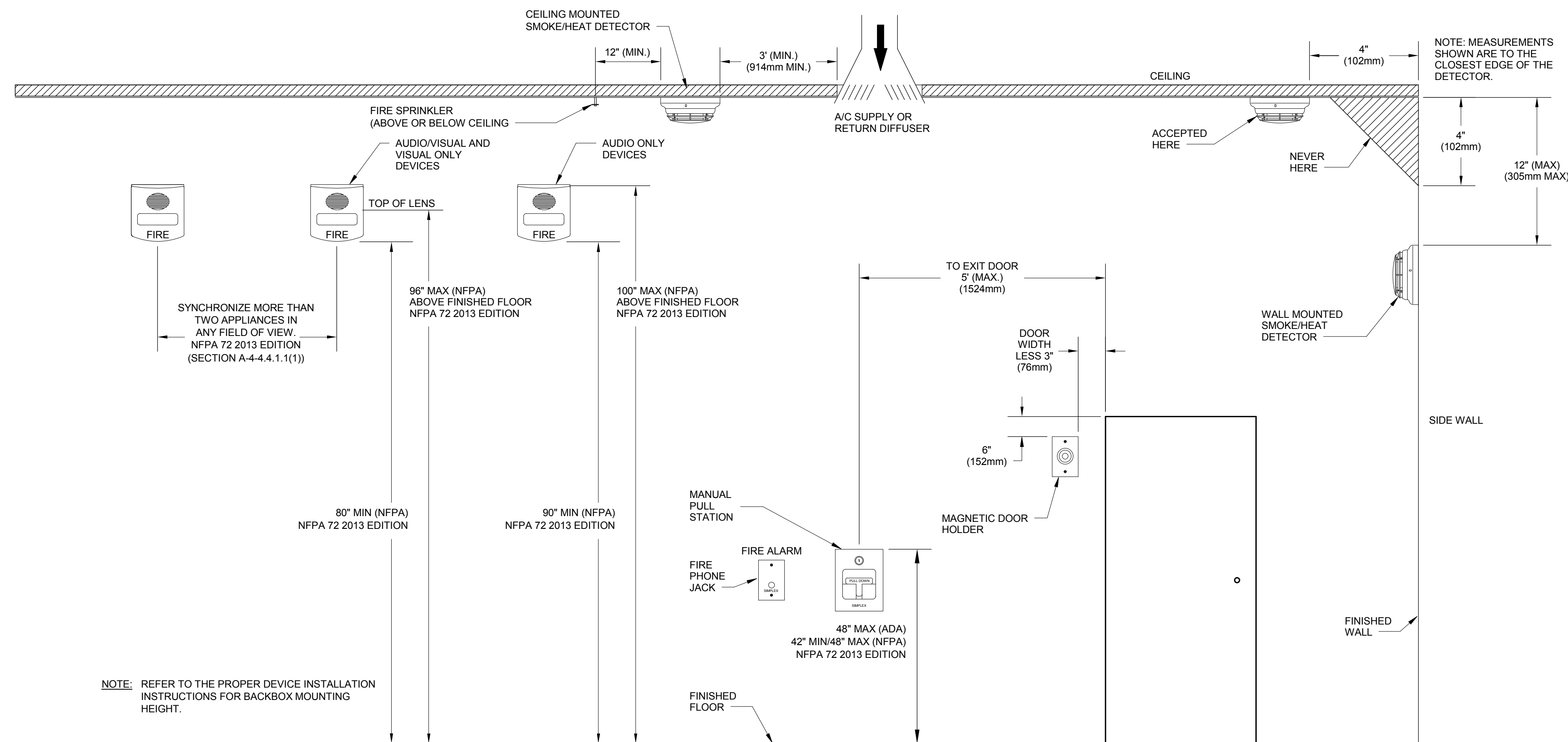
VISUAL APPLIANCE

AUDIBLE APPLIANCE



TYPICAL DEVICE WIRING DIAGRAMS

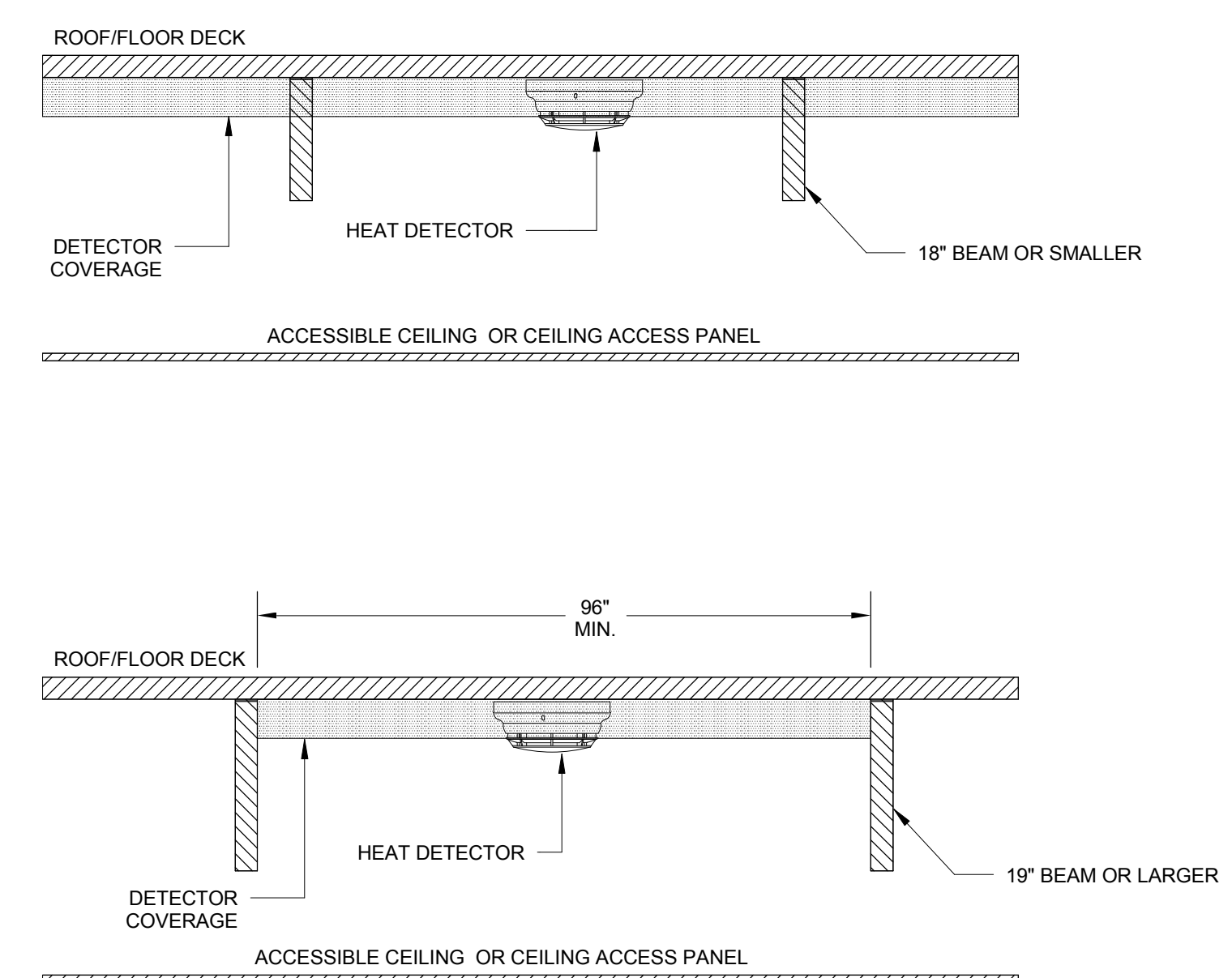
1" = 1'-0"



DEVICE MOUNTING DETAIL

1" = 1'-0"	6
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FIRE ALARM SYSTEM SCHEMATIC

$$1'' = 1'-0''$$


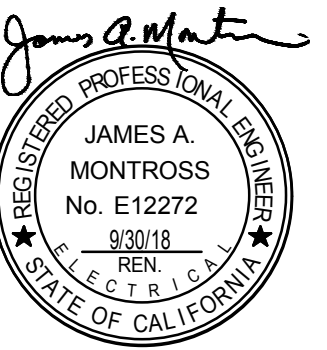
HEAT DEVICE MOUNTING DETAIL

1" = 1'-0"	5
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Reed & Grant Streets, Santa Clara, CA

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JOB. NO.	1416810
DATE	12.13.2016
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SCALE	1" = 1'-0"
PROJECT NO.	CE 16-17-13
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TRACING NO.	

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FIRE ALARM DETAILS AND DIAGRAM

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ABBREVIATIONS

AFC	ABOVE FINISHED COUNTER TOP
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS POINT
AWG	AMERICAN WIRE GAUGE
AV	AUDIO VISUAL
BB	BACK BONE
C	CONDUIT
CAT	CATEGORY
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CL	CENTERLINE
CKT	CIRCUIT
CLG	CEILING
CT	CABLE TRAY
CU	COPPER
D	DATA
(E)	EXISTING TO REMAIN
EC	EMPTY CONDUIT
EF	ENTRANCE FACILITY
EG	EQUIPMENT GROUND
ELEC	ELECTRICAL
EMT	ELECTRO METALLIC TUBING
EV,ELEV	ELEVATOR
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FARA	FIRE ALARM REMOTE ANNUNCIATOR
FB	FLOOR BOX
FCIP	FIRE ALARM CONTROL AND INDICATING PANEL
FO	FIBER OPTIC
FOC	FACE OF COLUMN
FOIC	FURNISHED BY OWNER INSTALLED BY CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTING
G, GND	GROUND
IT	INFORMATION TECHNOLOGY
IDF	INTERMEDIATE DISTRIBUTION FACILITY
J, J-BOX	JUNCTION BOX
MDF	MAIN DISTRIBUTION FACILITY
MECH	MECHANICAL
MM	MULTI-MODE
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OSP	OUTSIDE PLANT
PB	PULL BOX
Ø, PH	PHASE
PNL	PANEL
PP	PATCH PANEL
PR	PAIR
PRT	PORT
PVC	POLYVINYL CHLORIDE CONDUIT
PWR	POWER
RIO	ROUGH IN ONLY
RSC	RIGID STEEL CONDUIT
SLV	SLEEVE
SM	SINGLE MODE
SMH	SPECIAL MOUNTING HEIGHT
SYS	SYSTEM
TEL	TELEPHONE
TELE	TELECOMMUNICATIONS
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TP	TAMPER PROOF
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL
TV	TELEVISION
V	VOICE
VC	VOLUME CONTROL
UON	UNLESS OTHERWISE NOTED
W	WALL
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF

SYMBOLS	CLOCK SYMBOLS	BACK BOX	MTG. HT.	POWER
(D)	STANDARD DIGITAL CLOCK	PER MFG. SPEC.	TBD	N/A
(DF)	DOUBLE-FACED DIGITAL CLOCK	PER MFG. SPEC.	TBD	N/A
(S)	DIGITAL CLOCK WITH SECONDS DISPLAY	PER MFG. SPEC.	TBD	N/A
(ET)	DIGITAL CLOCK WITH ELAPSED TIMER	PER MFG. SPEC.	TBD	N/A
(TC)	TIMER CONTROL	PER MFG. SPEC.	45" AFF	N/A
(A)	ANALOG CLOCK	PER MFG. SPEC.	TBD	N/A

TECHNOLOGY SYMBOL SCHEDULE

SYMBOLS	INTERCOM, PAGING & SOUND SYMBOLS	BACK BOX	MTG. HT.	POWER
(HPS)	WALL MOUNT PAGING SPEAKER		WALL	N/A
(PES)	CEILING MOUNT PAGING SPEAKER		CEILING	N/A
(S)	SPEAKER (AV)=AUDIO/VISUAL SPEAKER	PROVIDED BY VENDOR	CEILING	
(KS) ()	WALL MOUNTED SPEAKER (AV)=AUDIO/VISUAL SPEAKER	PROVIDED BY VENDOR	PER VENDOR DETAIL	N/A
(V)	VOLUME CONTROL	A	45" AFF	N/A
(H) (R) (K) ()	WALL MOUNTED SPEAKER	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(INT) ()	INTERCOM STATION, (D)=DOOR STATION (M)=MASTER STATION (S)=SUBMASTER STATION	PER MFG. SPEC.	PER VENDOR DETAIL	N/A

SYMBOLS	RADIO SYMBOLS	BACK BOX	MTG. HT.	POWER
(EMS)	EMS RADIO CONSOLE	G	PER VENDOR DETAIL	120VAC
(EMT)	EMS RADIO TRANSMITTER	G	PER VENDOR DETAIL	120VAC

SYMBOLS	DICTION SYMBOLS	BACK BOX	MTG. HT.	POWER
(DETC)	CENTRAL DICTION EQUIPMENT TERMINAL CABINET	PER MFG. SPEC.	PER VENDOR DETAIL	120VAC
(DICT)	DICTION OUTLET WITH VOICE CABLING INFRASTRUCTURE	N/A	PER VOICE OUTLET	N/A

SYMBOLS	SECURITY SYMBOLS	BACK BOX	MTG. HT.	POWER
(KP)	KEYPAD	PER MFG. SPEC.	45" AFF	N/A
(CR)	CARD READER	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(CRL)	CARD READER LOCK	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(EH)	EMERGENCY HELP PUSHBUTTON	PER MFG. SPEC.	45" AFF	N/A
(EHA)	EMERGENCY HELP BUTTON ANNUNCIATOR	PER MFG. SPEC.	66" AFF	N/A
(DP)	DOORBELL PUSHBUTTON	PER MFG. SPEC.	45" AFF	N/A
(DB)	DOORBELL BUZZER	PER MFG. SPEC.	45" AFF	N/A
(DS)	DOOR POSITION SWITCH	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(CK)	CARD READER WITH KEYPAD	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(IR)	INTERCONNECTION TO MOTION DETECTOR SENSOR	PER MFG. SPEC.	PER VENDOR DETAIL	N/A
(PTZ) ()	CEILING MOUNTED CCTV CAMERA FOR SECURITY, FIXED, MEDIUM LENS, STAND AND HOUSING (PTZ-PAN TILT,ZOOM, TP=VANDALPROOF, WP=WEATHERPROOF HOUSING, D=DOME, PO=PATIENT OBSERVATION)	PER MFG. SPEC.	PER VENDOR DETAIL	SPEC.
(PTZ) () (FIXED)	CCTV CAMERA FOR SECURITY (PROVIDE 2 CAT-6 CABLES)	PER MFG. SPEC.	PER VENDOR DETAIL	120VAC

SYMBOLS	INFANT SECURITY SYMBOLS	BACK BOX	MTG. HT.	POWER
(ISE)	DOOR EXCITER	PER MFG. SPEC.	PER MFG. DETAIL	N/A
(ISR)	RECEIVER ANTENNA	PER MFG. SPEC.	ABOVE CEILING	N/A
(ISK)	KEYPAD	PER MFG. SPEC.	45" AFF	N/A
(ISA)	ALARM ANNUNCIATION	PER MFG. SPEC.	PER MFG. DETAIL	N/A
(CPA)	CODE PINK ANNUNCIATOR	PER MFG. SPEC.	66" AFF	N/A
(CP)	CODE PINK STATION	A	45" AFF	N/A

SYMBOLS	PATHWAY SYMBOLS	NOTES
	LOW-VOLTAGE SYSTEMS CORRIDOR CABLE TRAY	
	LADDER STYLE RACK TRAY IN TELECOM ROOMS	
—CT—	LOW-VOLTAGE SYSTEMS CABLE TRAY ROUTE	
—J—	J-HOOK PRIMARY PATHWAY ROUTE	
[—]	FIREWALL PENETRATIONS/SLEEVE (SEE NOTES FOR SIZES)	
	EZ-PATH SLEEVE	
	CONDUIT INSTALLED CONCEALED ABOVE CEILINGS OR IN WALLS IN FINISHED AREAS OR EXPOSED IN UNFINISHED AREAS	
— — —	CONDUIT INSTALLED BELOW FINISHED FLOOR OR BELOW GRADE	
—○—	INDICATES CONDUIT TURNING UP	
—●—	INDICATES CONDUIT TURNING DOWN	
—	CONDUIT STUBBED OUT WITH BUSHING	
—]	CONDUIT STUBBED OUT AND CAPPED	

SYMBOLS	VOICE AND DATA SYMBOLS	BACK BOX	MTG. HT.	POWER
()	VOICE/DATA OUTLET, TYPICAL OUTLET CONFIGURATION IS (2) CATEGORY 6 CABLES AND (1) ANALOG LINE	G	18" AFF	N/A
()	VOICE/DATA OUTLET (#) = NUMBER OF CAT 6 CABLES OTHER THAN STANDARD OUTLET CONFIGURATION	G	18" AFF	N/A
()	VOICE/DATA OUTLET MOUNTED ABOVE COUNTER (#) = NUMBER OF CAT 6 CABLES OTHER THAN STANDARD OUTLET CONFIGURATION	G	6" ABOVE COUNTER	N/A
(AP) ()	WIRELESS ACCESS POINT (2) CAT 6 CABLES IN SURFACE MOUNT HOUSING	N/A	ABOVE CEILING	120VAC
()	VOICE/DATA FLOOR OUTLET (#) = NUMBER OF CAT 6 CABLES OTHER THAN STANDARD OUTLET CONFIGURATION	PER ELEC. SPEC.	FLOOR	N/A
()	VOICE/DATA CEILING OUTLET (#) = NUMBER OF CAT 6 CABLES OTHER THAN STANDARD OUTLET CONFIGURATION	PER ELEC. SPEC.	CEILING	N/A
(TV)	TV OUTLET, (1) COAXIAL RG6 CABLE & (1) CAT 6 CABLE	G	64" AFF	N/A
(TMP)	TEMPERATURE MONITORING OUTLET, (1) CAT 6 CABLE			
(TC)	TIME CLOCK OUTLET, (1) CAT 6 CABLE			
(W)	WALL TELEPHONE OUTLET, (1) CAT 6 CABLE	G	48" AFF	N/A
(ATM)	DEDICATED ATM MODEM CONNECTION, (1) CAT 6 CABLE			
(EV)	ELEVATOR EQUIPMENT ROOM PHONE INTERFACE, (2) CAT 6 CABLES ROUTED TO CONTROL PANEL IN CONDUIT.	N/A	COORD. WITH ELEVATOR VENDOR	N/A
(POS)	POINT OF SALE			

SYMBOLS	NURSE CALL AND CODE BLUE SYMBOLS	BACK BOX	MTG. HT.	POWER
()	NURSE CALL DOMELIGHT, (A)=AUDIBLE ALARM	B	CEILING OR WALL	N/A
	NURSE CALL ZONE LIGHT	B	CEILING	N/A
()	SINGLE PATIENT STATION, (V)=VISUAL ONLY	C	45" AFF	N/A
()	DUAL PATIENT STATION, (V)=VISUAL ONLY	C	45" AFF	N/A
()	STAFF ASSIST STATION	A	45" AFF	N/A
()	BED RECEPTACLE PLUG KIT FOR INTERFACE CONNECTION OF NURSE CALL SIDE COMM CNTRL'S	A	18" AFF	N/A
()	STAFF STATION	C	45" AFF	N/A
()	DUTY STATION, (V)=VISUAL ONLY	C	45" AFF	N/A
(EP)	EMERGENCY PULL CORD STATION (PULL CORD TO EXTEND WITHIN 2' FROM FLOOR)	A	45" AFF	N/A
()	CODE BLUE STATION	A	45" AFF	120VAC
()	REMOTE CANCEL BUTTON	PER MFG. SPEC.	45" AFF	120VAC
()	AUXILIARY INPUT, #=NUMBER OF AUXILIARY INPUTS	A	45" AFF	120VAC
()	LOW VOLTAGE RELAY FOR LIGHTING / SHADE CONTROL	PER MFG. SPEC.	CEILING OR WALL	N/A
()	KEY OPERATED DISCONNECT FOR NURSE CALL	PER MFG. SPEC.	45" AFF	120VAC
(L)	LOCATOR SENSOR	PER MFG. SPEC.	CEILING OR WALL	120VAC
()	PUSHBUTTON EMERGENCY STATION (STAINLESS STEEL WITH TAMPER PROOF SCREWS)	PER MFG. SPEC.	45" AFF	N/A
(NM)	NURSE CALL MASTER STATION	A	--	N/A
(CB)	CODE BLUE ANNUNCIATOR	PER MFG. SPEC.	66" AFF	N/A

COMMUNICATIONS GENERAL NOTES

- ALL SYMBOLS ARE NOT NECESSARILY SHOWN ON DRAWINGS.
- THE COMMUNICATION VENDORS AND ELECTRICAL CONTRACTOR SHALL CONFORM TO STATE AND LOCAL CODES FOR THE ROUGH-IN AND INSTALLATION OF THE COMMUNICATION SYSTEMS. THIS INCLUDES, BUT IS NOT LIMITED TO, MEETING CODES CONCERNING CONDUIT, CABLE (PLENUM OR NON-PLENUM), CABLE INSTALLATION, DEVICE LOCATIONS, WALL PENETRATIONS, AND FIREPROOFING SLEEVES AND CONDUITS.
- THE ELECTRICAL CONTRACTOR SHALL CONFIRM ALL ROUGH-IN, ELECTRICAL, AND EQUIPMENT LOCATION REQUIREMENTS WITH THE COMMUNICATION VENDORS.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL STRUCTURAL MOUNTING REQUIREMENTS WITH THE COMMUNICATION VENDORS. THIS INCLUDES, BUT IS NOT LIMITED TO, CEILING, WALL, AND FLOOR MOUNTED EQUIPMENT.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE INSTALLATION SCHEDULE WITH ALL COMMUNICATION VENDORS.
- COMMUNICATION VENDORS SHALL RECEIVE AND STORE ALL EQUIPMENT AND MATERIALS AND DELIVER THEM TO THE JOBSITE ON A JUST-IN-TIME BASIS. THE GENERAL CONTRACTOR SHALL PROVIDE SECURE ON-SITE STORAGE FOR COMMUNICATIONS EQUIPMENT THAT NEEDS TO REMAIN ON-SITE.
- ALL VOICE AND DATA WALL OUTLET BACKBOXES INSTALLED AT 45" AFF MUST HAVE A MINIMUM 8" RADIUS FROM THE CENTER OR THE BACKBOX THAT IS CLEAR FROM ANY OTHER DEVICES OR OBSTRUCTIONS.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A GROUNDING AND BONDING SYSTEM IN ALL COMMUNICATION EQUIPMENT ROOMS AND IT EQUIPMENT SERVER ROOMS. THE ELECTRICAL CONTRACTOR SHALL USE A MINIMUM #6 AWG STRANDED COPPER BONDING CONDUCTOR TO BE INSTALLED AROUND THE PERIMETER OF THESE ROOMS.
- BACKBOX REQUIREMENTS ARE FOR PLANNING PURPOSES ONLY. THE GENERAL CONTRACTOR SHALL COORDINATE ACTUAL BACKBOX REQUIREMENTS WITH VENDOR SHOP DRAWINGS.
- COORDINATE WITH ARCHITECTURAL ELEVATIONS.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY WITH THE COMMUNICATIONS PLANNER FOR THE EXACT ROUGH-IN LOCATION FOR THE NURSE CALL EMERGENCY PULL CORD STATIONS (EP) IN PATIENT TOILETS, SHOWERS, AND TUBS TO ENSURE THEY ARE ACCESSIBLE TO PATIENTS PER STATE HEALTHCARE CODES.

SYMBOLS	AUDIO VISUAL SYMBOLS	BACK BOX	MTG. HT.	POWER
(AVC)	AV CONTROLS	E	44" AFF UON	N/A
(AV1)	A/V OUTLET	E	CEILING	N/A
(AV2)	A/V OUTLET-CONFIG#2 (1-HDMI, 1-3.5mm MINI,1-VGA)	E	20" AFF UON	N/A
(AV3)	A/V OUTLET-CONFIG#3 (1 SET OF RCA)	E	84" AFF UON	N/A
(AV4)	A/V OUTLET-CONFIG#4	E	84" AFF UON	N/A
(AV5)	A/V OUTLET-CONFIG#5	E	84" AFF UON	N/A
(AV)	AUDIO/VISUAL CEILING CONNECTIONS (1.25" CONDUIT)	E	ABOVE CEILING	N/A
(AV)	AUDIO/VISUAL FLOOR BOX CONNECTIONS (1.25" CONDUIT)	J	CAN BE COMBINED WITH V/D BOX	N/A
(TV1)	TV OUTLET-1GANG JBOX W/ MUD RING AND COVER, USE 3/4" CONDUIT AND STUB-OUT IN ELECTRICAL ROOM @ 10'-0" AFF	E	84" AFF UON	N/A
(TV2)	TV OUTLET-CONFIG#2 (1 RG6 + DATA CABLE)	E	84" AFF UON	N/A
(DVD)	DIGITAL VIDEO DISC PLAYER	N/A	--	120VAC
(TV) ()	WALL-MOUNTED TELEVISION (R)=RELOCATE EXISTING DEVICE	N/A	84" AFF	120VAC
(OPP) ()	OVERHEAD PROJECTOR WITH BRACKET	N/A	ABOVE CEILING	120VAC
(STP) ()	SHORT THROW PROJECTOR			

REFERENCE	COMMUNICATION SYSTEMS BACKBOX LEGEND
A	RACO #695 OR EQUAL - SINGLE-GANG BACKBOX,3-3/4" HIGH, 1-31/32" WIDE AND 3-1/2" DEEP.
B	RACO #696 OR EQUAL - TWO-GANG BACKBOX, 3-3/4" HIGH, 3-3/8" WIDE AND 3-1/2" DEEP.
C	RACO #697 OR EQUAL - THREE-GANG BACKBOX, 3-3/4" HIGH, 5-19/32" WIDE AND 3-1/2" DEEP.
D	RACO #698 OR EQUAL - FOUR-GANG BACKBOX, 3-3/4" HIGH, 7-13/32" WIDE AND 3-1/2" DEEP.
E	STEEL CITY #72171 OR EQUAL - 4-11/16" HIGH, 4-11/16" WIDE, AND 2-1/8" DEEP BACKBOX WITH STEEL CITY #72-C-14 SINGLE DEVICE COVER.
F	RACO #699 OR EQUAL-FIVE-GANG BACKBOX, 3-3/4" HIGH, 9-7/32" WIDE AND 3-1/2" DEEP.
G	RACO #250 OR EQUAL-4-11/16" SQUARE BOX, 2-1/8" DEEP WITH RACO #838 OR EQUAL 3/4" DEEP ONE DEVICE COVER.
H	RACO #952 OR EQUAL-THREE-GANG BOX, 1-5/8" DEEP WITH RACO #822 OR EQUAL 3/4" DEEP THREE GANG DEVICE COVER.
I	RACO #265 OR EQUAL-4-11/16" SQUARE BOX, 1-1/2" DEEP WITH RACO #840 OR EQUAL 3/4" DEEP TWO DEVICE COVER.
J	SPIDER BOX AFB-501-8 GANG FLOOR BOX, PROVIDE (2) 1-1/2" CONDUITS FOR LOW VOLTAGE SYSTEMS AND CONDUITS TO SUPPORT (4) DUPLEX RECEPTACLES IN FLOOR BOX.

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Developed for
CITY OF SANTA CLARA

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CITY ACCEPTANCE		Date	By	Engr. Init.	Date	Description	Rev. No.
Engr. Init.	Date						
		03/11/16				100% SCHEMATIC DESIGN	
		05/03/16				DESIGN DEVELOPMENT	
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LOW VOLTAGE SYMBOL LIST

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9. CONDUIT(S) SHALL EXIT A PULLBOX ON THE WALL OPPOSITE THE WALL ENTERED.
10. PROVIDE LABELING OF EACH CONDUIT PER GENERAL ELECTRICAL SPECIFICATIONS.
11. PROVIDE INTERNAL/EXTERNAL GAS AND WATER TIGHT MECHANICAL SEALING/PLUGGING OF EACH BUILDING ENTRY CONDUIT AS SPECIFIED ELSEWHERE IN THE DRAWINGS AND SPECIFICATIONS.
12. COORDINATE ALL MOUNTING DIMENSIONS FOR ELECTRICAL DEVICES AND SWITCHES WITH ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
13. COORDINATE ALL PENETRATIONS WITH STRUCTURAL PLANS AND DETAILS. NO PENETRATIONS ARE PERMITTED UNLESS SPECIFICALLY NOTED ON STRUCTURAL DRAWINGS.

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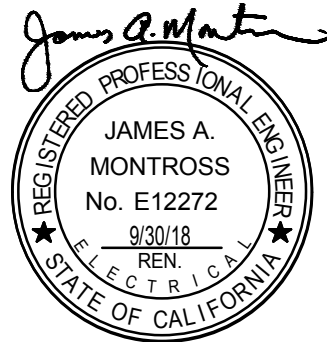
KEYNOTES

- E-1101 PROVIDE (2) CAT-6 DATA DROPS IN 1-1/4" C. FROM NEAREST IDF CABINET AND TERMINATE AT LIGHT POLE FOR SECURITY CAMERA.
- E-1102 PROVIDE (2) CAT-6 DATA DROPS IN 1-1/4" C. FROM NEAREST IDF CABINET AND TERMINATE AT OUTDOOR RATED J-BOX W/ COVER AT 11'-0" AFF FOR SECURITY CAMERA. CONFIRM FINAL J-BOX LOCATION WITH ARCHITECT PRIOR TO ROUGH IN.



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REED ST.-GRANT ST.
SPORTS PARK

Reed & Grant Streets, Santa
Clara, CA

Developed for
CITY OF SANTA CLARA

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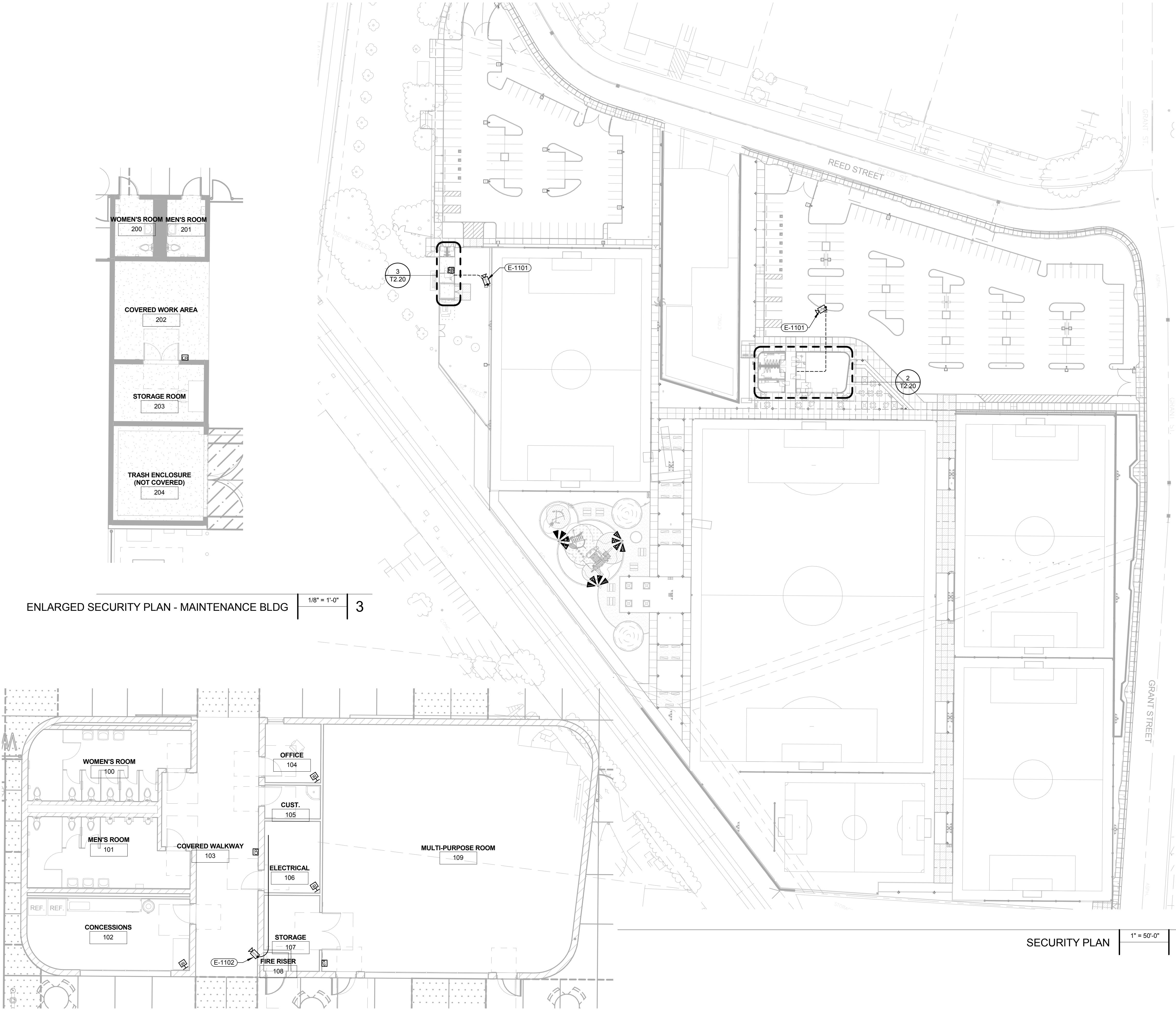
Rev. No.	Description	Date	CITY ACCEPTANCE	
			By	Date
	100% SCHEMATIC DESIGN	03/11/16		
	DESIGN DEVELOPMENT	05/03/16		
	PCC SUBMITTAL	05/09/16		
	100% DESIGN DEVELOPMENT	08/23/16		
	50% CONSTRUCTION DOCUMENTS	12/13/16		
	AGENCY SUBMITTAL	02/27/17		
</				

12,158-D

SECURITY PLAN

T2.20

SHEET OF



ENLARGED SECURITY PLAN - MAINTENANCE BLDG

1/8" = 1'-0"

3

ENLARGED SECURITY PLAN - MULTIPURPOSE BLDG

1/8" = 1'-0"

2

SECURITY PLAN

1" = 50'-0"

1